

# HCV ADVOCATE WEEKLY NEWS REVIEW

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

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**February 20<sup>th</sup>, 2004**

### ***Can Treating HCV Prevent Progression to Cirrhosis?***

Henry Bodenheimer

Source: [www.gastrohep.com](http://www.gastrohep.com)

Hepatic fibrosis is a progressive insult responsible for morbidity and mortality in chronic hepatitis C infection. Thierry Poynard in his 1999 paper in *Hepatology* analyzed a large data set of liver biopsies in patients with hepatitis C and suggested that liver fibrosis progression was not uniform in individuals infected with hepatitis C. Some individuals appear to progress slowly while others rapidly progressed to cirrhosis. This dichotomy is perhaps most widely recognized in patients who have undergone liver transplantation. Patients with recurrent hepatitis C following transplant may develop cirrhosis in as short an interval as 4 to 5 years while progression to cirrhosis in a non-transplant setting typically takes 2, 3 or more decades.

Multiple factors have been identified as contributing to progression of fibrosis in hepatitis C. Three of the factors identified deserve highlighting:

Alcohol consumption is a modifiable cofactor which has been associated with more rapid progression of liver fibrosis. Although regular consumption of alcohol at levels more than 50gms of alcohol per day has been linked with rapid progression of disease, no safe level of alcohol consumption has been identified. It is wise therefore that patients with chronic hepatitis C infection avoid alcohol consumption.

A second factor associated with disease progression is fatty liver. Non-alcoholic fatty liver disease is increasingly recognized as a co-factor in disease progression in patients with various underlying liver conditions. This disorder is difficult to treat and pathogenesis may, in part, be related to insulin resistance associated with hyperlipidemia, diabetes and obesity. Hepatitis C infection itself, however, may contribute to lipid deposition within the infected liver. It is advisable that modifiable factors such as body weight, hyperlipidemia and insulin resistance be addressed and treated in patients with chronic hepatitis C infection.

A third factor which is not able to be modified but is associated with disease progression is the acquisition of HCV at an age greater than 40 years. Older patients appear to have more rapid progression of fibrosis than younger patients. Such information may be important in assessing prognosis and need for antiviral treatment.

A major question is whether liver fibrosis is reversible. Patients with established fibrous septa have shown gradual resolution of fibrosis with years of effective control of viral replication. The question remains, whether decrease in hepatic fibrosis in patients undergoing treatment for hepatitis C is a direct result of anti-fibrotic effect of alpha interferon, or is the beneficial effect a consequence of viral control. A recent report by Poynard in *Gastroenterology* 2002, addressed this question. Greater than 80% of liver biopsies evaluated in patients with sustained virologic response showed improved fibrosis while less than 10% showed a worsening. In contrast, less than 34% of individuals who showed non-response to interferon showed improvement in fibrosis while more than 20% showed a worsening. Such data suggest that the primary mechanism by which fibrosis is diminished in patients treated with alpha interferon is through control of viral replication.

In summation, chronic hepatitis C infection is an epidemic infection leading to chronic liver injury with hepatocyte necrosis subsequent inflammation and stimulation of hepatic fibrosis. This chronic process gradually leads to cirrhosis. Fortunately, with control of viral replication modulation of the intercellular matrix is possible and alpha interferon treatment regimens generating sustained virologic response are associated with improvement in hepatic fibrosis and even resolution of cirrhosis. In the future, assessment of hepatic fibrosis may be possible with non invasive assays and direct anti-fibrotic therapy maybe available to be coupled with inhibitors of viral replication to maximize the resolution of hepatic injury.

This "Soapbox" was published as part of the syllabus for the New York Society for Gastrointestinal Endoscopy 27th Annual Postgraduate Course - Endoscopic Decision Making 2003, held in New York, NY. 15 and 16 December 2003. See the NYSGE website.

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**February 21<sup>st</sup>, 2004**

## ***Hepatitis Link to Pigs May Hit Transplant Hopes***

*James Meikle, health correspondent*

*Source: The Guardian*

Britons might be catching hepatitis from pigs, a hypothesis that could undermine hopes of eventually using pigs' organs to cut waiting lists for human transplants, it emerged yesterday.

Vets investigating the prevalence of the hepatitis E virus in British herds found its signature looked like a strain identified in a human. The disease is rare in Britain, most of the 30 to 40 cases a year being people who have traveled to developing countries where hygiene is poorer. It is often endemic in pig herds in such countries.

It is usually mild compared with hepatitis B and C, which can lead to chronic disease, but it can cause severe liver failure in pregnant women.

Researchers from the government's Veterinary Laboratories Agency, writing in the *Veterinary Record*, have warned that the disease, which seems to have been well established in pigs for a decade, might on rare occasions leap from animals to humans. Pigs appear to carry the virus without symptoms and many humans may be carriers too, so hepatitis E might be more widespread than clinical cases suggest.

Xenotransplantation, using animal organs in humans, is still some years away but experiments between animal species have been attempted for some time. Pig cells may help cure diabetes, if experiments using monkeys are any guide, while scientists have tried to transplant piglets' hearts to baboons.

But there have long been fears that diseases harmless to pigs might turn into killer viruses when transferred to humans, undermining hopes that humans could soon have life-saving heart, liver or kidney transplants from specially bred GM pigs. No near-human trials are even near development in Britain.

The virus found in young pigs from farms in Bedfordshire and Suffolk was very like that found in a patient from Cornwall who had not traveled outside Britain for more than four years, according to yesterday's report. "Further work is needed to establish more precisely the extent and impact, if any, of infection in pigs and people in the UK and other countries," it said.

But "limited data" so far suggested transmission between species could not be ruled out. The presence of such potential animal-to-human viruses "also has implications in the field of xenotransplantation."

**February 23<sup>rd</sup>, 2004**

### ***Vermont: Group Wants Needle Exchange to Go Mobile***

*Associated Press (02.20.04)*

On Feb. 20, the St. Johnsbury Vermont CARES Community Advisory Board met to review an amendment to the statewide Organized Community- Based Needle Exchange Program operating guidelines. The group hopes to get the state health commissioner to approve a plan for a mobile exchange program in which peer outreach workers would give out needles in the community rather than just at approved clinics. The Health Department approved the concept of a mobile exchange program last year, but rules need to be established before it can begin, according to Kendall Farrell, executive director of Vermont CARES.

Under the terms of the current proposal, peer outreach workers would receive a stipend and follow a lengthy list of guidelines before distributing needles. The well-trained workers would provide drug users with a safe means of using intravenous drugs while educating them on health and safety issues such as safe sex. Farrell said there are many barriers to getting people into a site-based program; a mobile outreach would bring prevention materials and education to people who need the service.

St. Johnsbury is one of three Vermont towns that host exchange clinics. The others are Burlington and Brattleboro. Farrell said there are already six trained outreach workers in the St. Johnsbury area ready to bring needles and education to the streets. The next step is getting the health commissioner's approval.

*Source: AEGIS*

### ***Par Pharmaceutical Announces Receipt of Approvable Letter From FDA for Ribavirin Capsules***

*Source: PRNewswire*

SPRING VALLEY, N.Y.-- Par Pharmaceutical, Inc., the principal subsidiary of Pharmaceutical Resources, Inc. (NYSE:PRX) , today announced that its marketing partner, Three Rivers Pharmaceuticals, has received an "approvable" letter from the U.S. Food and Drug Administration (FDA) for ribavirin 200 mg capsules. The FDA has completed its review of Three Rivers' Abbreviated New Drug Application (ANDA) for ribavirin and has concluded that the application is approvable. Final approval is subject only to resolution of certain regulatory issues involving final product labeling.

Ribavirin, a synthetic nucleoside analogue with antiviral activity, is indicated for the treatment of hepatitis C, a chronic condition suffered by approximately 4 million Americans. Ribavirin is currently marketed by Schering-Plough Corporation under the brand name Rebetol(R). The U.S. market for ribavirin products is approximately \$600 million annually.

Three Rivers filed an ANDA containing a paragraph IV certification with the FDA in July 2001 seeking marketing clearance for its generic version of Rebetol(R). Under the terms of its agreement with Three Rivers, Par has exclusive rights to market Three Rivers' ribavirin product.

On July 16, 2003, the United States District Court for the Central District of California granted summary judgment of non-infringement regarding ribavirin to Three Rivers. The district court determined that the Three Rivers' product does not infringe any of three patents asserted by ICN Pharmaceuticals in the litigation. Earlier, Three Rivers reached a settlement of its patent litigation with Schering-Plough, so this court decision resolved the remaining patent barriers to FDA approval of Three Rivers' ANDA.

Pharmaceutical Resources, Inc., a holding company, develops, manufactures, and distributes generic pharmaceuticals through its wholly owned subsidiary, Par Pharmaceutical. Through its FineTech unit, PRX also develops and utilizes synthetic chemical processes to design and develop intermediate ingredients used in the production of finished products for the pharmaceutical industry. PRX currently manufactures and distributes over 170 products representing various dosage strengths of 71 drugs. For press release and other Company information, visit <http://www.parpharm.com/>.

Certain statements in this press release constitute "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. To the extent any statements made in this news release contain information that is not historical, these statements are essentially forward-looking and are subject to risks and uncertainties, including the difficulty of predicting FDA filings and approvals, acceptance and demand for new pharmaceutical products, the impact of competitive products and pricing, new product development and launch, reliance on key strategic alliances, uncertainty of patent litigation filed against us, availability of raw materials, the regulatory environment, fluctuations in operating results and other risks and uncertainties detailed from time to time in the Company's filings with the Securities and Exchange Commission, such as the Company's Form 10-K, Form 10-Q, and Form 8-K reports.

*Source: Pharmaceutical Resources, Inc.*

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Web site: <http://www.parpharm.com/>

## **VA Launches New Web Site on Hepatitis C**

*Source: PRNewswire*

WASHINGTON-- A new, comprehensive Web site on hepatitis C -- [www.hepatitis.va.gov](http://www.hepatitis.va.gov) -- will be formally launched Feb. 25 through a collaboration between the Department of Veterans Affairs (VA) and the University of California at San Francisco's Center for HIV Information (CHI).

"Hepatitis C is another reminder that veterans rely on VA to care for a wide variety of illnesses and battlefield injuries," said Secretary of Veterans Affairs Anthony J. Principi. "This Web site will help both veterans and medical practitioners to understand this complex, long-term illness."

Hepatitis C is the most common blood borne infection in the United States, affecting 2 percent of the population. VA cares for more hepatitis C patients than any other medical system, with more than 200,000 patients since 1996. The department has the largest screening, testing and care program for hepatitis C in the nation.

The new hepatitis C Web site has a section for veterans and non-medical employees that includes general information and links to other Web sites. It also offers information for health care providers that is searchable by topic and includes best practices, guidelines and slides.

"Hepatitis C is an important public health issue for our nation," said Dr. Lawrence Deyton, VA's chief consultant for public health, who oversees VA's hepatitis C programs. "VA is pleased to join with CHI, a world-class medical Web site developer, to provide a user-friendly resource on hepatitis C for providers, patients and public health authorities."

CHI, based at the San Francisco VAMC, is directed by Dr. Laurence Peiperl, a medical staff member of both the university and the San Francisco VAMC. Dr. Paul A. Volberding, chief of the medical service at the San Francisco VAMC, chairs the CHI Advisory Board.

*Source: U.S. Department of Veterans Affairs*

CONTACT: U.S. Department of Veterans Affairs, Office of Public Affairs,  
+1-202-273-6000 - Web site: <http://www.va.gov/> - <http://www.hepatitis.va.gov/>

### ***Civacir(TM) Phase I/II Trial in Hepatitis C Liver Transplant Patients Completed, Preliminary Results Encouraging***

*Source: PRNewswire*

ROCKVILLE, Md.-- Nabi Biopharmaceuticals (NASDAQ:NABI) today announced the preliminary results of its Phase I/II trial with Civacir(TM) [Hepatitis C Immune Globulin (Human)], an antibody-based therapy being developed to prevent hepatitis C virus (HCV) re-infection of transplanted livers in patients with chronic hepatitis C. The Phase I/II trial was randomized and controlled to evaluate the safety and pharmacokinetics (the measurement of how Civacir acts within patients) of two dose levels of Civacir versus a control in a total of 18 patients who underwent liver transplantation due to hepatitis C-induced end-stage liver failure.

"The findings from this trial are an encouraging step forward in the ongoing global battle against hepatitis C liver disease," said Henrik S. Rasmussen, MD, Ph.D., Nabi Biopharmaceuticals senior vice president, clinical, medical and regulatory affairs. "This trial demonstrated that Civacir was well-tolerated in both the high- and low-dose treatment arms. Although the study, being a Phase I/II study, was not powered to pick up significant differences in effect, it was encouraging to see a trend towards a reduction in ALT (serum alanine aminotransferase, an important liver enzyme that measures liver function) levels. Based on these results, we will now be able to define the continued development strategy for this agent."

"Phase I/II trials are designed to show that drugs are safe and they generate a measurable pharmacokinetic effect on patients," stated Gary L. Davis, MD, director, Division of Hematology and Medical Director, Liver Transplant Institute, Baylor University Medical Center and lead investigator for the Civacir trial. "We showed that Civacir is safe and behaved as anticipated in liver transplant patients. It was encouraging to see lower ALT levels and a trend to lower hepatitis C viral levels in liver tissue one month after beginning Civacir administration."

Detailed results from this study are being prepared for submission to a peer-reviewed medical journal and are not available at this time. This clinical trial was sponsored by the National Institute of Allergy and Infectious Diseases (NIAID), a part of the National Institutes of Health (NIH), and was conducted by the NIAID Collaborative Antiviral Study Group at four study sites in the United States.

#### *About Hepatitis C*

Hepatitis C virus (HCV) is a major cause of chronic liver disease, including cirrhosis and liver cancer, and is the most common cause of end-stage liver disease leading to liver transplant in the United States. The World Health Organization (WHO) estimates that about 170 million people, or three percent of the world's population are chronically infected with HCV and three to four million people are newly infected each year. An estimated 80 percent of acutely infected individuals become chronic carriers of HCV, a condition that can often result in insidiously progressive liver disease. The Centers for Disease Control and Prevention (CDC) report that approximately five percent of people infected with HCV develop end-stage liver failure or liver cancer and require a liver transplant in order to survive. In North America and Europe approximately 30 - 40 percent of liver transplants are due to HCV infection. Moreover, during surgery and in the period immediately following transplant, these patients have no treatment options to prevent re-infection of the transplanted liver. Re-infection of the transplanted liver is almost inevitable within weeks to months after surgery and can occur within days of transplantation. HCV infection also contributes to frequent hospitalizations and failure of the transplanted liver when it occurs in transplant patients. Consequently, there is a significant medical need for new and better treatment options for this patient population.

#### *About Nabi Biopharmaceuticals*

*Nabi Biopharmaceuticals applies its knowledge of the human immune system to commercialize and develop products that address serious, unmet medical needs. The company's focus is in the areas of infectious, autoimmune and addictive diseases. In addition to five marketed products (PhosLo(R), Nabi-HB(R), WinRho SDF(R), Aloprim(TM), Autoplex(R) T), the company has several products in various stages of preclinical and clinical testing. Nabi Biopharmaceuticals has advanced StaphVAX(R) to Phase III clinical development. StaphVAX is designed to prevent the most dangerous and prevalent strains of Staph aureus bacterial infections. Staph aureus bacteria are a major cause of hospital-acquired infections and are becoming increasingly resistant to antibiotics. The company's other products in development include Altastaph(TM), an antibody for prevention of Staph aureus infections, and NicVAX(TM), a nicotine vaccine, both in Phase II clinical testing, and Civacir(TM), an antibody for preventing hepatitis C virus re-infection in liver transplant patients. For additional information on Nabi Biopharmaceuticals, please visit our Web site at: [www.nabi.com](http://www.nabi.com).*

This press release contains forward-looking statements that reflect the company's current expectations regarding future events. Any such forward-looking statements are not guarantees of future performance and involve significant risks and uncertainties. Actual results may differ significantly from those in the forward-looking statements as a result of any number of factors, including, but not limited to, risks relating to the possibility that our confirmatory Phase III clinical trial for StaphVAX or our plans to commercialize StaphVAX in the EU may not be

successful; the possibility that we may not realize the value of our acquisition of PhosLo; the possibility that our rights to three existing biopharmaceutical products may expire; the company's dependence upon third parties to manufacture its products; the company's ability to utilize the full capacity of its manufacturing facility; the impact on sales of Nabi-HB from patient treatment protocols and the number of liver transplants performed in HBV-positive patients; reliance on a small number of customers; the future sales growth prospects for the company's biopharmaceutical products; and the company's ability to obtain regulatory approval for its products in the U.S. or abroad or to successfully develop, manufacture and market its products. These factors are more fully discussed in the company's Report on Form 8-K dated December 10, 2003 filed with the Securities and Exchange Commission.

*Source: Nabi Biopharmaceuticals*

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**February 24<sup>th</sup>, 2004**

### ***ViroPharma Initiates Phase 1 Hepatitis C Program With HCV-086***

*Source: ViroPharma Incorporated*

EXTON, Pa., (PRIMEZONE) -- ViroPharma Incorporated (Nasdaq:VPHM) today announced the initiation of a phase 1 clinical program with HCV-086, a hepatitis C antiviral compound that the company is co-developing with Wyeth (NYSE:WYE).

Initially, ViroPharma and Wyeth will conduct an ascending single dose, placebo-controlled study to assess the safety, tolerability, and pharmacokinetics of HCV-086 administered orally to healthy volunteer subjects. The study is being conducted at a leading clinical research facility in the United States. Should those data support further advancement of the product, the companies plan to initiate a multiple dose study in patients with chronic hepatitis C virus (HCV) infection to assess the antiviral activity, safety, tolerability and pharmacokinetic profile of HCV-086. Overall, the companies expect to have proof of concept antiviral data from the latter study in the fall of 2004.

"HCV-086 is a member of a new chemical series, and our preclinical data demonstrate that it is significantly more potent than other inhibitors that we have studied in the past," said Dr. Stephen Villano, ViroPharma's Chief Clinical Officer. "We also believe that HCV-086 will have improved pharmacological attributes in humans that we hope will translate into clinical benefit for HCV-infected patients."

ViroPharma and Wyeth are engaged in a collaboration to develop and commercialize antiviral compounds to treat hepatitis C (HCV). In addition to HCV-086, the companies are continuing to advance an additional HCV antiviral compound through preclinical testing.

#### *About ViroPharma Incorporated*

*ViroPharma Incorporated is committed to the development and commercialization of products that address serious diseases treated by physician specialists and in hospital settings. ViroPharma is currently focused on drug development activities in viral diseases including cytomegalovirus (CMV) and hepatitis C (HCV).*

Certain statements in this press release contain forward-looking statements that involve a number of risks and uncertainties, including those relating to:

- ViroPharma's belief that HCV-086 will have improved pharmacological attributes in humans;
- whether HCV-086 will provide clinical benefit for HCV-infected patients; and
- ViroPharma's plans to receive proof of concept, antiviral data from its current phase 1 HCV studies in the fall of 2004.

Our actual results could differ materially from those results expressed in, or implied by, these forward-looking statements. There can be no assurance that any of the forward-looking statements identified in this press release will occur. Conducting clinical trials for investigational pharmaceutical products are subject to risks and uncertainties. There can be no assurance that planned clinical trials can be initiated, that planned or ongoing clinical trials can be successfully concluded or concluded in accordance with ViroPharma's anticipated schedule, or that HCV-086 will achieve proof of concept. These factors, and other factors, including, but not limited to those described in ViroPharma's most recent annual report on Form 10-K and quarterly report on Form 10-Q filed with the Securities and Exchange Commission, could cause future results to differ materially from the expectations expressed in this press release. The forward-looking statements contained in this press release may become outdated over time. ViroPharma does not assume any responsibility for updating any forward-looking statements.

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### ***Lamivudine for Prevention of Chemotherapy-Induced HBV Reactivation***

Source: [www.gastrohep.com](http://www.gastrohep.com)

Prophylactic lamivudine treatment in hepatitis B virus carriers receiving chemotherapy prevents virus reactivation, find doctors in the latest issue of the *Journal of Viral Hepatitis*.

Hepatitis B virus (HBV) reactivation in carriers undergoing immunosuppressive therapy is well documented.

However, the efficacy of antiviral prophylaxis in these patients is unclear.

In this study, doctors from Turkey and the United States assessed lamivudine prophylaxis in HBV carriers with hemato/oncological malignancies, who received chemotherapy.

The team evaluated 18 HBV carriers with malignancy. Of these, 8 patients were enrolled for prophylactic lamivudine therapy. The remaining 10 controls did not receive prophylactic therapy.

The team began lamivudine treatment on the same day as the patient received chemotherapy. Lamivudine was maintained for a year after chemotherapy was discontinued.

The team did not find any HBV-related mortality in either group. 50% of the control group experienced HBV reactivation.

They identified no evidence of HBV reactivation in the lamivudine group. However, 50% of the control group experienced a reactivation of HBV infection.

The reactivation occurred during chemotherapy in 4 patients.

No lamivudine-related major adverse effects were observed.

Dr Idilman's team concluded, "Prophylactic lamivudine treatment in HBV carriers with hemato/oncological malignancy receiving chemotherapy prevents chemotherapy-induced HBV reactivation".

*J Viral Hepatitis 2004; 11(2): 141-7*

## **Bad Blood Lingers Over Jail Donors**

*By Gerard Ryle*

The Australian Red Cross collected blood from prisoners for more than a decade after some other countries declared the practice unsafe, a Senate inquiry into hepatitis C has been told.

Canada banned blood collection in prisons in the 1970s because it was "too dangerous", a victims group has claimed.

But until 1983 in Victoria and Tasmania, mobile blood collection units were sent to prisons to collect blood from inmates.

According to the Red Cross, collections from NSW prisons ceased in the mid-1970s and in South Australia in 1975. No specific date, other than the early 1980s, was given for when they stopped in Western Australia.

The Red Cross said it was "now intending to respond to this fully during the inquiry process in relation to the historical context of the decision-making at the time".

In its submission to the inquiry, it admits it has no way of knowing how many Australians have been infected through blood or blood products. It estimates there may be about 3400 people infected who are still alive.

"To put these figures into context, in the past 20 years blood services in Australia have issued in excess of 30 million blood products," the submission says.

The Tainted Blood Product Action Group, which campaigned for the inquiry, says collecting blood from prisoners was inconsistent with a voluntary blood donation system that relied on the honesty of donors.

"Scientific and medical knowledge in the 1970s was advanced enough to understand the threat of hepatitis and the increased dangers of encouraging and accepting blood . . . from prison inmates," its submission says.

The group said thousands of Australian hospital patients have been infected with hepatitis C through blood products.

The Medical Error Action Group, a victims support group, has told the inquiry that tainted blood "represents one of the worst medical disasters" in Australian history.

This story was found at: <http://www.smh.com.au/articles/2004/02/23/1077497517470.html>

**February 25<sup>th</sup>, 2004**

## ***Do-It-Yourself Tattoos Worry Officials***

*Martha Irvine, AP National Writer*

*Source: Seattle Post-Intelligencer*

MINNEAPOLIS -- Erik Hansen rolls up his left sleeve to reveal a roughly drawn skull-and-crossbones-tattoo. A friend did it for him a few weeks ago, using a needle and ink at what Hansen calls a "poke and stick party" - a growing trend among young people as tattoos and piercings have surged in popularity. Body art between friends can be a rite of passage, a backroom ritual often done on the sly. Teens talk about school athletes doing tattoos or piercings for one another as an initiation. "It's more fun to have a friend do it - and it was free," says Hansen, a 20-year-old from Minneapolis. But officials where he lives - and in other places nationwide - are worried.

In Hennepin County, which includes Minneapolis, they've started a poster campaign in schools and neighborhood hangouts to encourage young people to have their tattoos and piercings done by licensed professionals. "Get the good design, not a bad disease!" says one poster about tattooing. Another features a photo of an upper lip piercing with warnings about the risk of infections, blood-borne diseases and nerve damage.

The Oregon Health Licensing Office has a similar Web-based campaign, begun after several young people from the town of Klamath Falls got serious upper ear infections from piercings done at a jewelry kiosk with lax sterilization procedures. The cases - and resulting disfiguration - were documented in Wednesday's Journal of the American Medical Association.

Meanwhile, the Texas Department of Health library offers a video for teens and young adults titled "Tattooing and Body Piercing: Thinking Smart About Body Art." And Connecticut is among states with a brochure that has similar information. The biggest concerns include the potential spread of tetanus and hepatitis B or C if people share tattooing needles or whatever sharp objects - pins and nails included - they use to do their piercing. "It's just not something you can do in your garage," says Shahn Anderson, a licensed tattooist and president of the Alliance of Professional Tattooists, who helped design the Hennepin County campaign. Eighteen-year-old Katie Klaren thinks posting the information is a good idea. "Anything but ears, I would want a professional to do," the high school senior from Roseville, Minn., says as she waits at a licensed piercing studio in Minneapolis with her friend, Leslie Barker. The fresh-faced teens were there to

have their nipples pierced - a procedure that's become trendy since Janet Jackson's Super Bowl flash. "It's an on-the-edge kind of thing," Barker says, adding that both waited until they didn't have to have written parental permission - required in Hennepin County since last summer. Several states have laws that prohibit minors from getting tattoos or "body art" regardless of who's holding the needle. And others, such as Wyoming, are considering bans.

Often, licensed piercers and tattooists have even stricter standards than states or cities, requiring a parent to be present or, in some cases, setting their own age limits for certain procedures. Some youth think that banning them from having work done, or requiring parental permission, is only causing more minors to do the piercing themselves or seek out unlicensed amateurs, known in the industry as "scratchers." "You can't just outlaw things," says Hansen, who says he could not have afforded a professional tattoo even if he'd wanted one. "It's like prohibition; it doesn't work." Gail Dorfman - the Hennepin County commissioner whose age-limits ordinance prompted the safety campaign - disagrees. "We're not telling kids they shouldn't get tattoos or piercings," says Dorfman, who's also the mother of five teenagers. "We're just saying, 'Be smart about it.'" She says doctors and nurses at the county's hospital have seen a spike in young people with infections caused by amateur work, sometimes done by friends or unlicensed operators. She also notes the case of a 19-year-old woman who pleaded guilty to a misdemeanor for doing piercings in a vehicle near a Minneapolis high school and another in suburban Wayzata last year.

Jesika Bornsen, a professional piercer at a shop called Saint Sabrina's in Minneapolis, agrees that the campaign can only help educate teens and parents. "It's saying, 'Talk to your parents about it,'" says Bornsen, a member of Association of Professional Piercers who's worked in the field for eight years. She says parents also might be pleasantly surprised if they checked out licensed piercing and tattoo facilities, which increasingly look more like spas than darkened back rooms. In the end, she says, "Parents have to pick their battles." "Do you want your kid to have a healthy piercing?" she asks. "Or the safety pin in their eyebrow?"

### ***Peginterferon Alpha 2a versus Interferon Alpha 2b Plus Ribavirin in Chronic Hepatitis C***

Source: [www.gastrohep.com](http://www.gastrohep.com)

Treatment with peginterferon alpha 2a minimizes the adverse impact of therapy on health-related quality of life in patients with chronic hepatitis C, find physicians in the *Journal of Viral Hepatitis*.

In this study, physicians from the United States assessed the effect of 2 interferon-based therapies on the health-related QOL, work productivity and resource utilization in patients with chronic hepatitis C.

The team randomized 412 patients to either peginterferon alpha (pegIFN) 2a mono-therapy (n = 206) or interferon alpha (IFN) 2b plus ribavirin (RBV) (n = 206).

The team administered the PegIFN 2a subcutaneously at a dose of 180 g once weekly for 48 weeks. The IFN 2b/RBV was administered at doses of 3 MU thrice weekly subcutaneously and 1000-1200 mg/day orally.

The physicians used the SF-36 Health Survey Questionnaire and additional generic and specific scales to evaluate the patients.

They found that the IFN 2b/RBV patients score less well for all SF-36 summary and Hepatitis Quality of Life Questionnaire (HQLQ)-specific scales than the pegIFN 2a group. These differences were pronounced during the first 24 weeks of treatment.

The pegIFN group also scored better on all measures of work functioning and productivity at each visit.

Dr Perrillo's team concluded that, "Treatment with pegIFN 2a relative to IFN 2b/RBV minimizes the adverse impact of therapy on health-related QOL".

"Patients randomized to pegIFN 2a had improved work productivity, less activity impairment, decreased need for prescription drugs to treat adverse effects, and better adherence to therapy".

*J Viral Hepatitis 2004; 11(2): 157-65*

### **Schering-Plough, Continuing Cost Cuts, Lays Off 200**

*Linda A. Johnson*

*Source: Associated Press*

TRENTON, N.J. (AP) --Drug maker Schering-Plough Corp., struggling to turn around amid plunging revenues and mounting losses, is laying off 200 U.S. workers and freezing hiring under its ongoing plan to slash payroll costs. The layoffs come after only 900 U.S. employees, including 600 in New Jersey, signed up for the Kenilworth-based company's voluntary early retirement package late last year. "We are temporarily suspending hiring worldwide for the next several months," company spokeswoman Rosemarie Yancosek said Wednesday.

Schering-Plough, which makes allergy and hepatitis C medications, announced a restructuring, including the voluntary retirement plan and suspension of executive bonuses, last August. In December, executives said they planned to reduce by at least 10 percent all payroll expenses, including employee salaries and benefits and costs for contractors, temporary workers and consultants.

"We're definitely getting there," said Yancosek, who would not specify what percentage of the job cuts have been completed.

She said Schering-Plough already has cut about 200 positions outside the United States, including 170 at an Irish manufacturing plant that makes the company's top seller, Peg-Intron for hepatitis C.

The new layoffs include 110 workers in New Jersey, mostly at company headquarters in Kenilworth and a manufacturing and office site in nearby Union; a handful are at company locations in Berkeley Heights, Cranford, Lafayette, Madison and Springfield, Union County. Another 90 workers in other states also are getting pink slips.

“The vast majority were notified last week,” Yancosek said. Neither the job cuts nor the hiring freeze affect some key job categories: the sales force or production workers and staff working on manufacturing plant upgrades ordered by the Food and Drug Administration because of long-standing deficiencies.

Increased competition in the hepatitis C market, loss of most of allergy medicine Claritin's \$3 billion in annual revenues due to generic and nonprescription competitors and a scarcity of promising new drugs have added to chief executive officer Fred Hassan's problems. Since the turnaround whiz took over last April, Schering-Plough has posted losses in the last two quarters, the first in the company's 34 years.

Schering-Plough shares were down 16 cents at \$17.94 in afternoon trading on the New York Stock Exchange.

**February 26<sup>th</sup>, 2004**

### **Schering-Plough Sees Tax Refund Over \$400M In '04**

*Source: Dow Jones*

WASHINGTON --Schering-Plough Corp. (SGP) expects to receive a tax refund of more than \$400 million in 2004.

The Kenilworth, N.J., drug company said it had \$600 million of cash available in the U.S. as of Dec. 31 to pay down commercial paper balances or fund its U.S. operations, according to its annual report filed with the Securities and Exchange Commission.

In 2003, the company's U.S. operations generated tax losses, primarily due to the decline in sales of its Claritin product and the continued investment in research and development, the filing said. For 2003, all of the company's U.S. tax losses will be used to recoup taxes paid in previous years as a carryback benefit, the filing said.

The company said it also expects its U.S. operations will generate tax losses in 2004, but only some of the losses are expected to be used to recoup taxes paid in previous years. The amount of the expected 2004 loss that is more than what is used to recoup taxes paid in previous years becomes available to reduce taxable income in the future, according to the filing.

Schering-Plough said its U.S. operations have a deficit of \$1.4 billion, but it anticipates that to decline in 2004.

For 2004, the company expects its foreign operations to generate cash and its U.S. operations to have cash needs.

If the company's current cash management strategy and capital structure remain unchanged beyond 2004, Schering-Plough said, it expects both the cash held by the foreign-based subsidiaries and the debt owed by the U.S.-based subsidiaries to increase.

The company said it is evaluating whether the present strategies and structure are the most appropriate in light of the increasing debt levels and the changing portfolio of the company's products.

Schering-Plough said it believes it has sufficient financial resources to meet all of its financial needs. The company's non-U.S. subsidiaries hold more than \$4 billion in cash and cash equivalents and short-term investments, the filing said.

### **Schering-Plough CEO Urges Drug-Subsidy Foundation**

*Ransdell Pierson*

*Source: Reuters*

NEW YORK - The chief executive of Schering-Plough Corp. on Thursday called for creation of an independent U.S. foundation through which drugmakers could together offer free or cut-rate medicines to the uninsured, without raising antitrust concerns.

Fred Hassan, who took the helm of the Kenilworth, New Jersey-based drugmaker last year, outlined his plan in a speech to the National Medicare Prescription Drug Congress in Washington.

Hassan said recently enacted Medicare reforms should double to 40 million the number of senior citizens and disabled whose drugs will at least partially be reimbursed by the federal insurance program. Another 175 million Americans are covered by employer-based insurance programs.

Although 43 million Americans have no insurance, those with sufficiently low incomes are eligible for a crazy quilt of different assistance programs offered by major drugmakers.

But Hassan said only 6 million uninsured patients took advantage of those industry programs last year, largely because of difficulty applying for multiple programs and sorting out differences among them.

“Currently, each company must run its own separate program, each with its own eligibility, application procedures, renewal requirements and restrictions,” Hassan said.

He said individual drugmakers would like to band together and offer a more-uniform and accessible program but are barred from doing so by antitrust laws, which are designed to prevent price-fixing and other forms of collusion among rival companies.

He called for creation of an independent National Charitable Medicines Foundation that would work with participating drugmakers to create a “single point of entry and eligibility” for all company patient assistance programs for the uninsured.

“It would do so, without raising antitrust concerns,” he said.

February 27<sup>th</sup>, 2004

## **Hepatitis Drug-Maker Complaints Reviewed**

*Federal Health Officials Review Complaints That Hepatitis Drug-Maker*

*Chiron Blocks Research*

*Source: The Associated Press*

SAN FRANCISCO—Industry scientists have complained for years that Chiron Corp. has hindered the fight against hepatitis by creating a virtual commercial monopoly over drug research. Now, federal health officials are reviewing the 14-year-old government agreement that gave Chiron so much control over research that seeks to help the 170 million people afflicted with the disease.

Chiron holds 100 patents in 20 countries related to hepatitis C. Competitors complain they've abandoned plans to enter the field because Chiron demands too much money to access its technology. Chiron has successfully sued many companies for infringing its patents related to the virus.

Those patents credit Chiron scientists with discovering the hepatitis C virus despite the fact that a scientist from the Centers for Disease Control and Prevention contributed much to the original research.

But the CDC signed away to Chiron most of the commercial control of the virus for a little more than \$2.2 million in 1990.

"There have been a number of individuals in the scientific community that are involved in the prevention, treatment and research of hepatitis C that have said the agreement is having an impact on the scientists' ability to address hepatitis C," said CDC spokesman Tom Skinner. "We are looking into whether or not the agreement we have in place with Chiron is having an impact and, if so, what kind of impact."

Skinner couldn't provide any names of complaining scientists, details of what was being reviewed or what projects may be affected. He said he was unsure if the CDC's inquiry would ever expand beyond informal discussions.

Skinner's not even sure what recourse the CDC may have 14 years after signing the contract and said other CDC officials weren't available to comment.

What's more, many companies involved in hepatitis C research are reluctant to publicly discuss Chiron's tactics. Most have been sued at one time or another by Chiron, and several have settled their lawsuits in recent months and say they just want to get on with the research.

Still, the CDC concern highlight the ongoing tension between the U.S. patent system and free scientific inquiry.

The CDC inquiry also illustrates how sophisticated the government and universities have become in the last decade with intellectual property originating in their labs.

The CDC, for instance, claims ownership of the SARS virus and its entire genetic content after its researchers helped map the bug's genome. Rather than try to profit from it, the CDC wants to prevent others from monopolizing the field the way Chiron does with hepatitis C.

"The intellectual property was pretty new and at that time everybody was learning how to deal with it," said former CDC official Walter Dowdle, one of three government officials to sign the Chiron deal. "This was very early in the intellectual property business between companies and government."

Though academic scientists say they've encountered few problems working with the company, they still can't turn their discoveries into drugs without industry help.

Chiron said the CDC hasn't notified it of any review and defended its handling of its patents. Spokesman John Gallagher said the Emeryville- based company has deals with 13 competitors that allow them to pursue hepatitis C drugs with Chiron's patented technology.

Gallagher said Chiron makes its technology freely available to nonprofit research scientists, many of whom credit the company with funding hepatitis C science meetings and supporting academic endeavors.

"I would challenge anyone to show us anyone who has done as much as Chiron has," Gallagher said.

Hepatitis C is a blood-borne virus, often contacted by sharing needles, and can lead to chronic liver disease and liver cancer. Disease rates have fallen in the United States but are on the rise in developing nations.

Chiron's scientists in 1987 developed a technique to clone multiple versions of the elusive hepatitis C virus, which allows researchers to easily generate billions of viruses to research. Chiron received a patent for the discovery three years later.

The CDC filed a competing patent application, listing government scientist Dan Bradley as a co-discoverer. But in 1990, the government and Bradley withdrew their claims as co-inventors and renounced all rights after Chiron paid the CDC \$1.9 million and Bradley \$337,500.

In 1994, Bradley unsuccessfully sued Chiron in an attempt to undo the deal. He dropped his quest after losing a federal appeal four years later. Bradley, who has left the CDC, couldn't be reached through his lawyer.

"I have always thought Dan Bradley got a raw deal by being excluded from the patent," Scripps Research Institute researcher Dr. Frank Chisari said in an e-mail interview. "That dispute was settled a long time ago after a great deal of pressure by Chiron lawyers."

While Chisari said he had no problems personally with Chiron, he added: "I believed then and I believe now that Chiron scientists wouldn't have cloned the viral genome when they did if Dan Bradley and his colleagues at the CDC hadn't provided them with meticulously pedigreed material containing the genome."