hepc.bull

BC's Hepatitis C News Bulletin

"Promoting HCV Wellness"

FEBRUARY 2000 **Issue No. 20**

THE CO-INFECTION SECTION

ANTIRETROVIRAL THERAPY INCREASES HCV LOAD IN HCV/HIV COINFECTION

According to Reuters Health (Dec, 14, 1999), a study undertaken at the University of Pittsburgh School of Medicine and reported in the *Journal of Infectious Diseases*, 1999; 180: 2027-2029 reveals that "highly active antiretroviral therapy (HAART) does increase "the hepatitis C virus (HCV) load in dually infected patients." It had previously been "suspected that HAART may increase HCV load, and thereby accelerate liver disease progression," but up until now there was no direct proof.

The problem is that all the patients in the 2-year study group presented no increases in ALT and AST enzyme levels, while at the same time they presented significant decreases in HIV viral load and CD4 counts. The doctors had no clue until they did an HCV PCR.

The findings suggest "a dynamic reciprocal relationship between HIV RNA and HCV RNA, such that HCV RNA levels increase with HAART-induced HIV RNA reduction, and HCV RNA levels decrease with HAART discontinuation and HIV RNA levels rebound."

The authors of the study caution that the "increase in HCV load may not necessarily induce liver damage or accelerate progression of hepatitis, [and that] additional research will be needed to clarify the histopathologic significance of this finding."

HEPATOTOXICITY ASSOCIATED WITH ANTIRETROVIRAL THERAPY

Another study (*JAMA* 2000 Jan 5;283(1):74-80) indicates that hepatotoxicity is associated with antiretroviral therapy in adults infected with human immunodeficiency virus and investigates the role of hepatitis C or B virus infection.

The study was undertaken at Johns Hopkins University Schools of Medicine. The Objectives were "to ascertain if incidence of severe hepatotoxicity during antiretroviral therapy is similar for all antiretroviral drug combinations, and to define the role of chronic viral hepatitis in its development." Unlike the study undertaken at the University of Pittsburgh, in this study, liver enzyme

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THE BULLETIN HAS MOVED

The Editorial Board of the *hepc.bull*© has made a policy decision to move the bulletin to HepCBC. It is hoped this new association will enable us to continue the service that we have provided in the past and for which the *hepc.bull* is respected.

The bulletin has always prized its independence and its community orientation. The bulletin, like the HepCAN list and the FAQ project, arose to address unmet needs, and those needs still exist. It is HepCBC's mandate to continue to meet these needs and we need your help.

Unfortunately, as a result of this move, we now face severe financial constraints, and this month our circulation will be nowhere near the 1700 copies a month we were printing and distributing.

All who have paid their subscriptions for the *hepc.bull* will continue to receive one, and we shall send copies out to local support groups and clinics as we can. Sadly, we do not have sufficient funds to print out copies for everyone who needs one, nor can we afford the postage at this time, but we have faith that this situation will change.

We have asked several agencies to help us continue with the bulletin, and we hope they shall chip in. But right now, there is nothing, and this means that for those of us with HCV who do not have computer access, or do not live in large urban centres where information is easily accessible, current information on hepatitis C will now be unavailable.

Please note that our address has changed (see "How to Reach Us" on page 2), and that any monies you send to the bulletin should be made payable to HepCBC.

Joan King
C.D. Mazoff

ROSIGLITAZONE WARNING

Two case reports of hepatotoxicity occurring within three weeks of starting rosiglitazone therapy appear in the January 18th issue of the Annals of Internal Medicine 2000;132118-124,164

CLINICAL TRIALS OF NEW HEP C DRUGS

By Will Lawson

It is often ten years before a newly developed drug is approved for sale to the public. Patients who need a drug before it has been made commercially available can sometimes obtain it by volunteering in a clinical trial. This is the stage in the development of a drug when it is tested on humans.

To participate in a particular clinical trial, a volunteer must meet the criteria of the testing drug company and be able to go to where the trial is being held. Trials "close" when enough volunteers have been chosen, and "open" when more volunteers are needed or new drugs will be tested.

Clinical trials are done over four phases. The first phase involves a small number of volunteers, and is when the greatest risk of unforeseen toxicity exists.

If the toxicity is acceptably low and the drug is otherwise effective, it will undergo a phase II clinical trial to test for side effects and correct dosages.

A phase III clinical trial involves a greater number of volunteers, and further assesses the drug's effectiveness. Success in this phase can result in government approval.

Newly approved drugs are studied in phase IV clinical trials for further information about side effects.

A patient who joins a clinical trial, whether in desperation for a promising new drug, or to make a contribution to science, is taking a risk. The drug may work well, or it may not work at all. Unforeseen and perhaps permanently damaging side effects could occur.

Here is a list of current clinical trials of drugs to treat hepatitis C:

- Pegylated interferon alfa 2a (Pegasys), phase III, Hoffman-La Roche, (973) 235-5000
- Pegylated interferon alfa-2b (Peg-Intron), phase III, Schering Plough, (714) 545-0100
- Recombinant beta interferon, phase I/II, Serono Laboratories, (781) 982-9000
- Recombinant beta interferon 1a, phase II, Biogen, (617) 679-2000
- Interferon/iron reduction (for interferon

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SUBSCRIPTION FORM

Please fill out & include a cheque made out to **HepCBC** - Send to:

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2741 Richmond Road
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V8R 4T3

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"I enclose a donation of $_____so that others may receive the bulletin."

SUBMISSIONS: ***The deadline for any contributions to the* hepc.bull© *is the 15th of each month. Please contact the editors at hepcbc@pacificcoast.net, (250) 361- 4808. The editors reserve the right to edit and cut articles in the interest of space.***

ADVERTISING: ***The deadline for placing advertisements in the* hepc.bull *is the 12th of each month. Rates are as follows:***

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There will be a maximum of 4 ads in each issue, and the ads will be published if space allows. Payments will be refunded if the ad is not published. Ads are also posted to the Web.

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REPRINTS

Past articles are available at a low cost in hard copy and on CD Rom. For a list of articles and prices write to HepCBC.

COMING UP IN BC:

Castlegar/Grand Forks/Trail Contact: Robin, 365-6137

Comox Valley Liver Disease Support Group Meetings: Third Tuesday of each month, 6-8 PM, St. George's United Church on Fitzgerald. NEXT MEETING: February 15th. Drop in daily for coffee. Contact: Ingrid or Nicky, 335-9167, nickyrussell@sprint.ca

Cowichan Valley Hepatitis C Support Contact: Debbie, 715-1307, mygirl@olink.net, or Leah, 748-3432, r. attig@bc.sympatico.ca

Downtown Eastside Hep C Support Group Meetings: Each Monday, 6 to 8 PM, Carnegie Center, 401 Main St., Vancouver. Contact Carolyn: momma@vcn.bc.ca

Enderby HepCURE Meetings: Last Sunday of each month, 2-4 PM, for High Tea, The Raven Gallery, 701 George St. NEXT MEETING: February 27th. Contact: Marjorie, 558-7488. www.junction.net/hepcure/index.html

Kelowna HeCSC Meetings: Last Saturday of each month, 1-3 PM, Rose Avenue Education Room in Kelowna General Hospital. NEXT MEETING: February 26th. Contact: Michael, 860-8178 or eriseley@bcinternet.com

Kootenay Boundary Meetings: Second and fourth Tuesday of each month, 7 PM, 1159 Pine Ave. upstairs from Lordco auto parts. NEXT MEETINGS: February 8th and 22nd. Contact: Brian, 368-1141, k-9@direct.ca or Pat, 364-1555

Mid Island Hepatitis C Society Meetings: Second Thursday of each month, 7 PM, Health Unit-Central Vancouver Island, 1665 Grant St., Nanaimo. NEXT MEETING: February 17th. Contact: Susan, 245-7654, hepc@nanaimo.ark.com, or Rose, 714-1937.

Mission Hepatitis C and Liver Disease Support Group NEXT MEETING: Contact: Patrick, 820-5576.

New Westminster Support Group Meetings: Second Monday of each month, 7:00-8:30 PM, First Nation's Urban Community Society, Suite 301-668 Carnarvon Street, New Westminster. NEXT MEETING: February 14th. Contact Dianne Morrissettie, 525-3790.

Parksville/Qualicum 1-291 East Island Hwy, Parksville. Open daily from 9AM to 4 PM, M-F. Contact: (250) 248-5551. dbamford@island.net

Penticton HeCSC Meetings: Second Wednesday of each month, 7-9 PM, Penticton Health Unit, Board rooms. NEXT MEETING: February 9th. Contact: Leslie, 490-9054, bchepc@telus.net

Powell River HepC Information and Support: Contact Cheryl Morgan for time and place info. 483-3804.

Prince George Hep C Support Group Meetings: Second Tuesday of each month, 7-9 PM, Health Unit Auditorium. Next Meeting: February 8th. Contact Sandra, 962-9630 or Ilse, ikuepper@pgrhosp.hnet.bc.ca

Prince Rupert Contact: April, 627-7083.

Princeton Meetings: Second Saturday of each Month, 2 PM, Health Unit, 47 Harold St. NEXT MEETING: February 12th. Contact: Brad, 295-6510, citizenk@nethop.net

Quesnel Contact: Elaine, 992-3640.

Slocan Valley Support Group Meetings: Third Tuesday of each month, 7-9 PM, W.E. Graham Community School Youth Centre, Slocan. NEXT MEETING: February 15th. Contact: Ken 355-2732, keen@netidea.com, or Community School Coordinator 355-2484

Sunshine Coast NEXT MEETING: Contact: Kathy, 886-3211. kathy_rietze@uniserve.com

Vancouver CLF Meetings: Second Thursday of each month, 7:30 PM, Nurses' Residence, VGH (12th & Heather). Signs will direct you. NEXT MEETING: February 10th. (Contact: CLF, 681-4588, or Herb, 241-7766, HMoeller@compuserve.com

Vancouver Support Group Meetings Last Wednesday of each month, 10:30-12:30, BC CDC Building at 655 West 12th (12th and Ash, next to the Cambie Street City Square Mall- park here) There will be someone outside the building to direct. NEXT MEETING: February 23rd. Contact Darlene N., 685-3813, djnicol@attglobal.net, or Darlene M., 608-3544, hepcvsg@canada.com

Vernon HepCURE Meetings: First Tuesday 12-2 PM and third Tuesday of each month, 6-8 PM, the People Place, 3402-27th Ave. NEXT MEETINGS: February 1st and February 15h. Contact: Marjorie, 558-7488. www.junction.net/hepcure/index.html

Vernon HEPLIFE Meetings: Second and fourth Wednesday of each month, 10 AM-1 PM, The People Place, 3402-27th Ave. NEXT MEETINGS: February 9th and February 23rd. Contact: Sharon, 542-3092. sggrant@attcanada.net

Victoria HeCSC Meeting: Last Wednesday of each month, 1-3 PM and 7-9 PM, NEXT MEETING**:** February 23rd. **Contact: 388-4311. hepcvic@pacificcoast.net for possible new location.**

OTHER PROVINCES

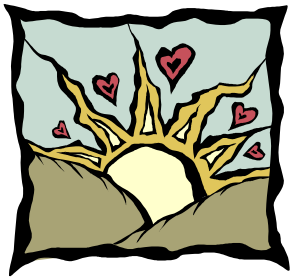
Central Alberta CLF Hepatitis C Support Group Meetings: Every 2nd Thursday of each month, 6-8 PM, Provincial Building, Room 109, 4920 51 St., Red Deer. Enter at southeast entrance. NEXT MEETING: February 10th. Contact Shane, 309-5483.

Durham Hepatitis C Support Group Meetings: NEXT MEETING: February 3rd, 7-9 PM, Durham Region Health Dept., 1615 Dundas St. E., Whitby Mall, Whitby, Ontario. (Call for directions.) Topic: Nutrition and Hep C. Contact**:** Jim 743-0319, tndrhart@idirect.com or Smilin' Sandi smking@home.com, http://members.home.net/smking/

Edmonton, Alberta Hepatitis C Informal Support Group Meetings: Every third Thursday of each month NEXT MEETING: February 17th, 6-8 PM, 10230-111 Avenue, Edmonton, Conference Room "A" (basement) Contact: Tracey Peddle, NitNGale@telusplanet.net or Jackie Neufeld: 939-3379 Parking: Meter Parking (underground and surface) roughly $3 per evening. Free street parking.

Hepatitis C Society of Ottawa-Carleton NEXT MEETING: February 22nd, 7-9 PM, Centertown Comm. Health Center, 420 Cooper St. (Ottawa) between Bank and Kent St. Also we offer one on one peer counseling Mon. afternoons. Contact: 233-9703 or sue.rainville@sympatico.ca

Kitchener Area Chapter Meetings: NEXT MEETING: February 16th 7:30 PM, K-W Elks Lodge, 38 Bridgeport Rd., E. Waterloo, ON. Contact Carolyn, 893-9136 or annetteb@golden.net



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SQUEEKY'S CORNER

WILL THEY EVER LEARN?

I just found out that someone very close to me has been diagnosed with Stage 3 liver disease (advanced fibrosis), and the story is all too familiar.

How many times have we heard the following story: "I had a blood test and the doctors told me that I had hepatitis C, but that my enzymes were normal and there was nothing to worry about."

In one case, the individual was advised not to pursue treatment, and this led to her untimely demise at the age of 38. In another case the person's stomach problems and fatigue were dismissed until she insisted that she have a biopsy. The results showed 2/2, and she was put on treatment, but it was too late for her to respond.

My friend found out he had hepatitis C a few years ago and was given the usual dismissive run around. He doesn't live near me, but we communicate by phone long distance. I began sending him the bulletin and counselled him to change doctors. He did.

To his surprise the new Gastro told him the same things we have been telling him in the bulletin, and so my friend decided to undergo a biopsy—DESPITE the fact that his enzymes are within range, he doesn't drink and he has no apparent symptoms.

Well, my friend just got his biopsy results last week; he was flabbergasted, but, because he has been keeping up-to-date through the bulletin, he was prepared. If he had started treatment 2 years ago, perhaps he would not be at Stage 3!

His new specialist has recommended Rebetron, but I told my friend to ask his specialist about getting on a trial with some form of pegylated interferon. He will ask.

How many are not so lucky? How many do not have access to specialists, or a CHOICE of specialists? How many affected with this disease can make informed decisions? How many have died and will die because of the ignorance that continues to exist in the medical community with respect to HCV?

If we don't stand up for our rights, who will?

THANKS!!

HepCBC acknowledges the personal donations, donations in kind received to date, and the following for discounts, donations of services, or equipment: The BC Ministry of Health, Steve Orcherton, Fernwood Home Services, Kiwanis, CFAX 1070, AM 900, CompuSmart. We also wish to acknowledge the generosity of the residents of VIRCC, Uncle Dave and some wonderful anonymous donors. Additional thanks to Margison Bros. Printers.

VIRAL HEPATITIS: MORE THAN THE ABC'S

UVIC Continuing Ed Course

Instructor: Wayne G. Guesquiere, M.D., F.R.C.P.(C), is an infectious diseases and internal medicine specialist practicing in Victoria.
Course Code: HPCE186 2000S1 S01
Date: Wednesday, March 8: 7 to 9:30 pm, 1 session
Fee: $32.10 (includes $2.10 GST)
Registration: (250) 472-4747
Fax/Registration: (250) 721-8774
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Order Your FAQ's Now

More of Peppermint Patti's FAQ are now available. The new version includes an HIV co-infection section as well as updated Canadian Links. Place your orders now. Over 100 pages of information for only $2 each plus S&H—but if you can afford more we'll take it. Contact HepCBC at (250) 361-4808, or at the address on page 2, "How to Reach Us."

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Thanks to Jennifer Fetter & Ed Holst of Obie Media for all the help.

U ASK

1. How long can the virus live outside the body?

Natalie Rock, RN, BSN - Hepatology Clinical Research Nurse, Dept. of Medicine U.B.C., Vancouver Hospital Div. Gastroenterology. Reprinted from the hepc.bull, October 1997.

This is a difficult question to answer due to the fact that testing for the virus in dried blood (outside the body) and then determining whether or not it can actually be transmitted is next to impossible. We are able to test for hepatitis B and HIV in contaminated blood that has been exposed to air by taking that specimen and injecting it into an animal model (woodchucks and chimpanzees). In the case of hepatitis C there is no animal model. A small study by Borgia et al. (1994) using PCR, found that "HCV RNA is resistant to drying at room temperature for at least 48 hours." The PCR doesn't necessarily tell whether the virus is alive or still infectious. However, the question still remains: Can the virus be transmitted to someone after being exposed to air (and for how long)?

So, the question must be looked at in a different way. If we look at the rate of transmission from an HCV positive mother to her fetus during the birthing process (keep in mind that the baby has swallowed a large amount of blood and is completely covered with blood) we know that between 8-10% will be anti-HCV positive. Secondly, the risk of transmission via accidental needle stick injury from an HCV positive source is between 4-10%. We also know that there are many factors that influence the rate such as viral load, and the type of needle used (hollow or solid).

Thirdly, when we look at household transmission of HCV through casual, non invasive contact, the incidence of HCV is rare. Fourthly, we know that the risk of transmitting HCV via other body fluids such as saliva, breast milk, semen or vaginal secretions is extremely low.

Therefore, one may conclude that the risk of transmitting HCV to another person via infected blood spilled on an inanimate object would be low and would also require an open source like a wound and thus blood to blood contact.

2. How soon is HCV detectable in the blood?

From American Association of Blood Banks 52nd Annual Meeting, San Francisco, November 6 - 10,1999
http://www.aabb.org/docs/amonline/52tueshcv.htm

In her presentation, "Transfusion Transmitted Diseases II, Natural History of HCV Infection and Counseling HCV-Positive Persons," Dr. Miriam J. Alter, PhD, Centers for Disease Control and Prevention, Atlanta, GA., states the following:

On average, there is a six to seven week period between exposure to the onset of symptoms but the average period between exposure to seroconversion is eight to nine weeks. The antibody to HCV (anti-HCV) can be detected within 15

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WHAT'S NEW

CRYOFILTRATION

Cryofiltration, developed from double filtration plasmapheresis (DFPP) with a cooling unit, is an on-line technique to remove cryoglobulin. Many Hep C patients suffer from cryoglobulinemia and some have a related kidney problem called glomerulonephritis. Some scientists at Kagawa Medical University, Japan, have used this filtration technique to remove cryoglobulins, together with a combination therapy or INF and corticosteroids. They found IFN to be capable of decreasing proteinuria but not diminishing cryoglobulin. They suggest that additional cryofiltration could remove cryoglobulin to an undetectable level. **This combination therapy with cryofiltration could prevent worsening of kidney function**. The major adverse effects of this therapy were bleeding and myelosuppression.

Ther Apher 1999 Nov;3(4):329-33 The effect of combination therapy with interferon and cryofiltration onmesangial proliferative glomerulonephritis originating from mixedcryoglobulinemia in chronic hepatitis C virus infection.Kiyomoto H, Hitomi H, Hosotani Y, et al., Second Department of Internal Medicine, Kagawa Medical University, Japan.kiyo@kms.ac.jp PMID: 10608730, UI: 20074442

EXPERIMENTAL HCV E1 THERAPEUTIC VACCINE

Six injections with E1 protein of HCV led to **significant improvements in liver biopsies, lasting up to one year** in two chimpanzees, reported Eric Depla, MD, from the Hepatitis Program at Innogenetics in Gent, Belgium.

Two chimpanzees were used in the study, one with genotype 1a, and one with genotype 1b. Each had various tests twice a week during 4 months, including liver enzymes, blood chemistries, HCV viral load, E1 antibodies, other HCV antibodies, and biopsies, which looked for inflammation and antigens.

A "vigorous immune response to the E1 protein was induced in both chimpanzees," and antibodies to E1 increased. The biopsies revealed a marked improvement from chronic active hepatitis to "chronic persistent hepatitis with minimal inflammation." ALT and gGT decreased, but there were no significant changes in HCV viral load.

Antibodies to E1 could no longer be detected, and biopsy scores worsened approximately one year after the last injection. Each chimp was given a "booster" vaccine series of three more. Antibodies quickly returned and biopsy scores improved, but there was still no decrease in the viral load.

Dr. Depla concluded that **it is possible that such a therapeutic vaccine may be a part of future therapy**, perhaps with interferon and other anti-HCV drugs.

Depla E and others. Therapeutic vaccination of chronically infected chimpanzees with the hepatitis C virus E1 protein. Abstract and oral presentation 39 at the 3rd International Conference on Therapies for Viral Hepatitis. December 12-16, 1999; Maui, USA and Antiviral Therapy 1999; 4 (Supplement 4)

HCV IN GASTRIC MUCOSA

The authors of this study searched for HCV in gastric biopsy specimens from 10 HCV-infected patients (8 with chronic gastritis and 1 with gastric low-grade B-cell NHL). The results show that **HCV can be found in the gastric mucosa.**

Hepatology 2000 Jan;31(1):182-189 Gastric Mucosa as an Additional Extrahepatic Localization of Hepatitis C Virus:Viral Detection in Gastric Low-Grade Lymphoma Associated With AutoimmuneDisease and in Chronic Gastritis.De Vita S, et al, Rheumatology Unit, Italy. PMID: 10613744

PROPHYLACTIC DNA VACCINE FOR HEPATITIS C VIRUS

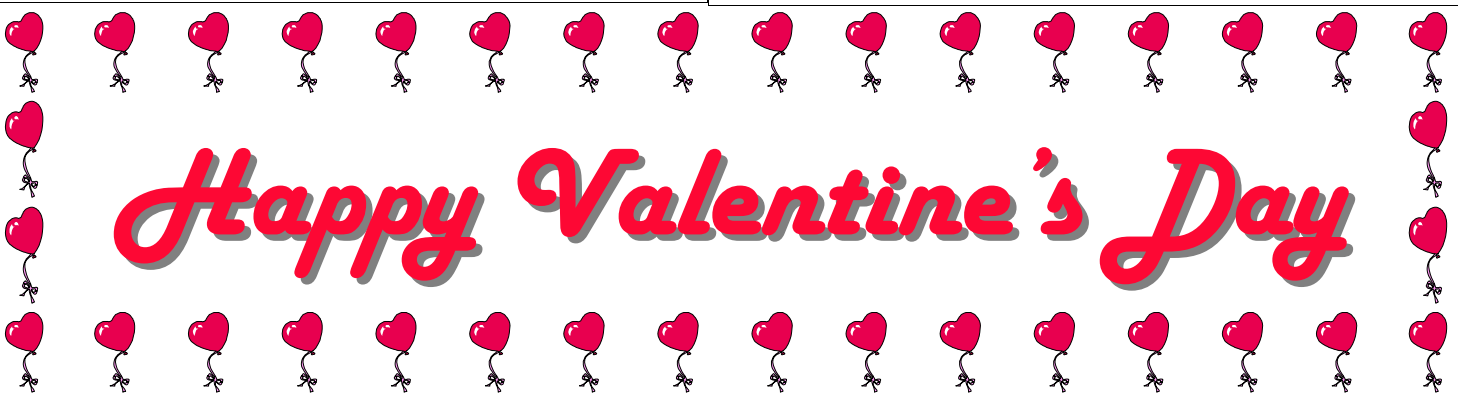
Tests were done on special transgenic mice to test a DNA vaccine designed to express antigens (substances that appear in response to a virus, but before viral replication takes place) and effectively induce cellular immune responses to HCV infection. These immunized mice were challenged with HCV core antigen, and then showed a substantial reduction in viral load compared with mice injected with a placebo. The protection, lasting at least 14 mo, suggests that **a DNA vaccine expressing HCV-core is a potential candidate for a prophylactic vaccine for humans.**

Prophylactic DNA vaccine for hepatitis C virus (HCV) infection: HCV-specific cytotoxic T lymphocyte induction and protection from HCV-recombinant vacciniainfection in an HLA-A2.1 transgenic mouse model. Proc Natl Acad Sci U S A 2000 Jan 4;97 (1):297-30. Arichi T, Saito T, Major ME, Belyakov IM, Shirai M, Engelhard VH, Feinstone SM,Berzofsky J, Molecular Immunogenetics and Vaccine Research Section, Metabolism Branch, National Cancer Institute, National Institutes of Health, Bethesda, MD 20892. PMID: 10618412

TEST TUBE LIVERS?

A new study shows that some mature **liver cells in adult mice are generated from bone marrow cells**, altering popular views on cell differentiation and stem cell potential. The study, by Neil D. Theise, M.D., New York University School of Medicine, Diane Krause, M.D., Ph.D., Yale University School of Medicine, and colleagues, is to be published in the January issue of *Hepatology* This study seems to prove that there is a liver stem cell. If those cells can be isolated, there will be targets for gene therapy and **it may be possible to transplant stem cells rather that whole livers, or to create an artificial liver.**

KM Communications , Test-Tube Livers May Be a Possibility. Researcher Contact: Dr. Neil Theise, 212-263-8944, Neil.Theise@med.nyu.edu



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RECOMMENDATIONS AND WARNINGS

USE DISPOSABLE TOURNIQUETS

British researchers recommend that **hospitals should use disposable tourniquets during procedures such as blood drawing and setting up IV lines**. Since tourniquets may become contaminated with blood and bacteria, and there is no way to disinfect a contaminated tourniquet, reusing it makes it possible to infect the next patient. Out of 50 tourniquets tested at St. Thomas Hospital in London, 25 had blood stains, and 17 were contaminated with bacteria and fungi. In another experiment, 27 more tourniquets were tested for HIV and Hep B, but none were contaminated, but the potential risk is obvious if the tourniquets touch broken skin.

SOURCE: The Lancet 2000;355:44.

ALPHA-FETOPROTEIN TEST TO SCREEN FOR LIVER CANCER

In Taiwan, most cases of hepatocellular carcinoma (HCC), a type of liver cancer, are due to hepatitis B or hepatitis C. The blood test for alpha-fetoprotein (AFP) level is an important way to diagnose HCC. In this study, the authors analyzed the distribution of AFP levels in Hep C patients with and without HCC to see how effective AFP results were in predicting HCC. They found the differences in AFP to be statistically significant between anti-HCV positive patients with and without HCC. A serum AFP level of more than 200 ng/ml suggests HCC. However, there is a large overlap between these 2 groups. Thus, in patients with HCV antibodies, AFP level is not enough to diagnose of HCC. **Patients with Hep C antibodies should be screened regularly for HCC by ultrasound as well as with serum AFP level.**

Hepatogastroenterology 1999 Nov-Dec;46 (30):3208-11 The effectiveness of serum alpha-fetoprotein level in anti-HCV positive patients for screening hepatocellular carcinoma, Peng YC, Chan CS, Chen GH, Department of Internal Medicine, Taichung Veterans General Hospital, Taiwan. PMID: 10626187, UI: 20091632

HEP B VACCINE & HEP C SUFFERERS

Since it is very dangerous for Hep C patients to become infected with hepatitis B, vaccinatio is highly recommended. A study was done on Hep C patients, compared to healthy recipients of the vaccine. A surprising 31% of Hep C patients did not respond to recombinant hepatitis B vaccine (Gen H-B-Vax(R), compared to 9% of healthy recipients. In those who did not respond, 80% responded to high-dose booster vaccination. Nonresponse was not found to be related to liver scarring nor Hep C viral load, nor was it explained by the presence of human leukocyte antigen, which could cause low antibody response to Hep B surface antigen. Therefore, **the antibody to HBV surface antigen (anti-HBs) titer response should be determined in patients who do not respond to the vaccine**. Depending on the response titer, **higher booster doses may be required** to achieve and maintain seroprotection in these patients.

Decreased Immunogenicity of Recombinant Hepatitis B Vaccine in Chronic Hepatitis C,. Wiedmann M, Liebert UG, Oesen U, Porst H, Wiese M, Schroeder S, Halm U, Mossner J, Berr F, Department of Medicine II, Germany. Hepatology 2000 Jan;31(1):230-234. PMID: 10613751

INFLUENZA DANGER: GET VACCINATED!

Dr. Andrea Duchini from Scripps Clinic, La Jolla, California, and colleagues analyzed 3 patients with influenza, who were seen at a liver transplantation clinic during the 1997 to 1998 influenza A epidemic in San Diego. One of the patients was 27 years old, with Wilson disease. Another was a 33 year year old with alcoholic cirrhosis. The third case was a 51-year-old man with alcoholic cirrhosis. Transplantation was avoided in 2 of the 3 cases of liver failure. The authors comment that flu complications outside the lungs is rare, but in animal models, influenza A can cause hepatitis. They suggest that the flu may affect the liver directly in patients with end-stage liver disease. Another possibility would be that liver failure in these cases may be caused by toxins carried by the circulation. The authors recommend that **all patients with chronic liver disease should get flu vaccines**. They also recommend that physicians **use rimantadine instead of amantadine** when treating flu patients with abnormal liver function.

Jan 14 (Reuters Health) Arch Intern Med 2000;160:113-115.

BEEF LIMA BEAN SOUP

Bring to a boil, 1/2 a package of lima beans (rinse first)
Let the beans sit for several hours in the pot with the heat off.

In a soup pot add:
- 4 cloves of fresh chopped garlic
- 1 sliced large onion
- 3 tablespoons of olive oil
- 400 gms of fresh cubed beef

Brown the ingredients on low to middle heat--do not fry. Keep cover on pot.

While browning add
- 1 teaspoon of sesame oil

Add:
- 4 sticks of celery, chopped
- 3 carrots, chopped
- 1 parsnip, chopped (or a turnip)
- 1 large can of tomatoes
- 1 green pepper, chopped

Then add the lima beans and the water they have been soaking in.

Add enough water to fill pot

Add:
- 1/2 teaspoon of Worcestershire Sauce (Lea & Perrins)
- 1 Oxo cube or package (if you do not want to use this, you can use miso, or a soup bone)
- 3/4 cup of loosely packed chopped parsley or cilantro

Bring to boil

Simmer for 2 hours

Serve over rice or barley.

*(**CLINICAL TRIALS**)—Continued from page 1)*

nonresponders), phase IV, Schering Laboratories, (908) 298-4000
- Beta interferon (for patients who relapsed after alpha interferon), phase II, Chiron, (510) 655-8730
- Lymphoblastoid, phase III, Glaxo Wellcome, (919) 248-2100
- Thymosin/interferon alpha, phase III, SciClone/Schering, (650) 358-3456
- Granulocyte microphage colony stimulating factor, phase II, Immunex, (206) 587-0430
- Ursodeoxycholic acid, phase II, Axcan Pharma/Mayo Clinic, (514) 467-5138

Two current clinical trials of drugs to treat liver cancer are
- AFP-Scan, phase II, Immunomedics, (973) 605-8200; and
- BUDR, phase II/III, National Cancer Institute, (800) 422-6237.

Source: http://www.hivandhepatitis.com/html/hepatitis_c.html#12279902

IFN RESPONSE IN HEP C PATIENTS WITH HEP B

Harvey S. Bartnof, MD, says, "End-of-**treatment response rates are higher among those patients with chronic hepatitis C who do not have antibodies to hepatitis B** core than among those without antibodies to HBV core. However, the more important issue of **sustained response rates was not significantly different** between the two groups in the first study. Sustained response rates were not reported in the second study. Additional, larger studies will be needed to assess whether sustained response rates are the same or not. Ideally, such studies would use Rebetron treatment that would include the experimental longer-acting ('pegylated') alfa interferon and not just monotherapy with non-pegylated alfa interferon."

References: Colantoni A and others. The impact of prior HBV infection on the course of chronic hepatitis C. Abstract and poster presentation 49 at the 3rd International Conference on Therapies for Viral Hepatitis, December 12-16, 1999;Maui, Hawaii and Antiviral Therapy 1999; 4 (Supplement 4): Abstract 49, 14.

SOMATOSTATIN MONOTHERAPY BEST FOR BLEEDING

The combination of somatostatin and isosorbide 5-mononitrate is **less effective than treatment with somatostatin alone** in cirrhotic patients with acute variceal bleeding, Spanish researchers report.

http://gastroenterology.medscape.com/16407.rhtml

RIBAVIRIN MAY CAUSE FUTURE INJURY

Increased levels of iron in the liver may impair the response of Hep C patients to IFN treatment, but **combination therapy with ribavirin has been shown to be effective in the treatment of hepatitis C**. It is well known that ribavirin can cause anemia, which goes away after treatment. In this study, the authors compared the amount of iron deposits in biopsy specimens from patients treated with either ribavirin or a placebo. The overall iron score fell by 0.96 in the placebo group and increased 1.69 in the ribavirin recipients. Iron was deposited mainly in liver cells; the hepatocyte iron score increased from 2.19 to 3.81 in the ribavirin group. **Iron deposits in the liver increased during a 9-month course of ribavirin**, but does not seem to affect response to ribavirin therapy as measured by blood tests or biopsies, **but may have implications for future injury to liver cells.**

Am J Clin Pathol 2000 Jan;113(1):35-9 Increased hepatic iron deposition resulting from treatment of chronic hepatitis C with ribavirin. Fiel MI, Schiano TD, et al. - Hans Popper Department of Pathology, Mount Sinai Medical Center, City University of New York, NY 10029, USA. PMID: 10631856, UI: 20097474

IMPROVING RESPONSE TO IFN

Certain factors have been found to predict the probability of responding to IFN therapy for Hep C. A patient is **more likely to respond if his/her genotype is not type 1, if the viral load is low, if the patient is female and pre-menopausal, and not of African descent.** Now, researchers have reported additional co-factors that are associated with a response to therapy.

Dr. Yatsuhashi and other collaborators measured the levels of two interferon receptor chains in liver cells that bind to interferon, before and after therapy with interferon alone. The receptors are called IFNAR1 and INFAR2, and are required for interferon to work. After testing a total of 52 patients through pre- and post-treatment biopsies, the authors concluded that **IFNAR1 and IFNAR2 measurements might help predict response to IFN therapy,** and think that resistance to IFN may be due to low levels of these receptors**.** The results suggest that if the receptors could be induced or supplemented, then the response to interferon might be improved.

In another report, Dr. M. Oshita, and colleagues treated 185 patients with interferon. The authors analyzed response rates by HLA haplotyes (human leukocyte antigen or white blood cell markers). Three different HLA markers predicted response to therapy, HLA A26, B7 and B46. For those with HLA A26, the response rates were higher than for those without. For those with HLA B46, the response rates were higher than for those without. Within the subgroup of patients with genotype 1b, the response rates for those with HLA A26 were higher than those without. Similarly, within the same sub-group of patients with genotype 1b, the response rates for those with HLA B46 were higher than for those without.

Also, for those with HLA B7, the response rates were significantly lower than for those without. Within the subgroup of patients with genotype 1b, the response rates were significantly lower for those with HLA B7 than for those without. However, the authors noted that all genotype 1b patients had a high baseline HCV viral load (greater than 1 million equivalents per milliliter).

The authors of this study conclude that, "**HLA haplotypes might influence the efficacy of interferon therapy for chronic hepatitis C.**" The findings in the current study may be relevant in terms of possible future treatments for those with Hep C.

From "Interferon receptors in the liver and genetic markers provide insights as to which patients might respond to treatment," by Harvey S. Bartnof, MD

Source: www.hivandhepatitis.com

ROCHE FILES PATENT INFRINGEMENT SUIT AGAINST SCHERING REGARDING PEGYLATED INTERFERON

Roche Holding AG has filed suit in the United States and France alleging that Schering-Plough Corp has infringed on Roche patents for pegylated interferon, a Roche spokesman said on Monday.

http://gastroenterology.medscape.com/16300.rhtml

PRE-MENOPAUSAL WOMEN RESPOND BETTER TO IFN

Many studies have shown that men don't respond so well as do women to interferon for Hep C, and older patients don't respond so well as younger patients. Researchers in Chicago have found that pre-menopausal women respond better to IFN than post-menopausal women or men.

In a study, 50 premenopausal and 15 post-menopausal women and 86 age-matched men with hepatitis C were given high doses of alfa interferon, 5 million units daily, for six months. The results showed that pre-menopausal women had a higher response rate (74%) than age-matched men (56%). The pre-menopausal women also had a significantly higher response rate (74%) than post-menopausal women (47%). This means that **the presence of female hormones may help the response rate to alfa interferon for women with chronic hepatitis C**. The author of the article suggests that a study with hormonal manipulation for these two groups would be indicated.

From "Pre-Menopausal Women Have Better Response Rate to Alfa Interferon for Chronic Hepatitis C" by Harvey S. Bartnof, MD. Resource: Colantoni A and others. "The effect of menopause on the response to interferon in women with chronic hepatitis C". Antiviral Therapy 1999; 4 (Supplement 4), 38.

(**CO-INFECTION**—*Continued from page 1)*

levels were used as indicators, not viral load. Ritonavir use was associated with a higher incidence of toxicity, while no significant difference was detected in those treated with nucleoside analogs, nelfinavir, saquinavir, and indinavir. The study concluded that "the use of ritonavir may increase risk of severe hepatotoxicity. Although hepatotoxicity may be more common in persons with chronic viral hepatitis, these data do not support withholding protease inhibitor therapy from persons coinfected with hepatitis B or C virus." The authors also noted that any liver damage incurred in the study was reversible.

PMID: 10632283, UI: 20096144

CUPID'S CORNER

This column is a response to requests for a personal classified section in our news bulletin. Here is how it works:

To place an ad: Write it up! Max. 50 words. Deadline is the 15th of each month and the ad will run for two months. We'd like a $10 donation, if you can afford it. Send cheques payable to **HepCBC,** and mail to **HepCBC, Attn. Squeeky, 2741 Richmond Road Victoria BC V8R 4T3.** Give us your name, tel. no., and address.

To respond to an ad: Place your written response in a separate, sealed envelope with nothing on it but the number from the top left corner of the ad to which you are responding. Put that envelope inside a second one, along with your cheque for a donation of $2, if you can afford it. Mail to the address above.

Disclaimer: The hepc.bull and/or HepCBC cannot be held responsible for any interaction between parties brought about by this column.

Ad No. 10

Respectful, respectable man (49) but looks younger who is very active and loves life. I'm 6' tall, 210 lbs. and considered nice looking, emotionally and financially secure and non-symptomatic. I won't let Hep C rule my life and am looking for a positive female to share a long-term happy life together. Vancouver area.

(U ASK—*Continued from page 3)*

weeks in 80 percent of patients, within five months in approximately 90 percent and by the six-month mark in 97 percent. In rare cases, seroconversion has been known to occur nine months after exposure.

And this from Peppermint Patti's FAQ V3, page 7:

The incubation period (the amount of time that elapses between infection and the development of symptoms) varies for the different hepatitis viruses. Hepatitis A and E may develop as few as two weeks after exposure, but usually appear after four weeks. For hepatitis B and C it may take up to six months before symptoms develop. (The average incubation period is two to three months for hepatitis B and six to nine weeks for hepatitis C.) In experiments on chimpanzees, hepatitis D developed two to ten weeks after infection.

After initial exposure, HCV RNA can be detected in blood in 1-3 weeks. Within an average of 50 days (range 15-150 days), virtually all patients develop liver cell injury, as evidenced by elevation of serum alanine aminotransferase (ALT). The majority of patients are asymptomatic and anicteric [no jaundice]. Only 25-35 percent de-

(Continued on page 8)

KNOWN HERB-DRUG INTERACTIONS

Although the area of herb-drug interactions is under-researched, there are some interactions we do know about.

Feverfew: Feverfew is most commonly used for the treatment of migraines. Non-steroidal anti-inflammatory drugs (NSAIDs) such as aspirin or ibuprofen (Motrin, Advil) may reduce the effectiveness of feverfew. It can also inhibit platelet activity and should not be taken together with blood thinners such as Coumadin. Feverfew contains tannin, which has the ability to inhibit iron absorption, and should not be used for longer than four months without medical supervision. The recommended dosage is 125 mg daily; each dosage unit should contain at least 0.2% parthenolide.

Garlic: Most recent uses for garlic focus on its ability to treat high cholesterol and high blood pressure. Garlic can increase the risk of bleeding and should not be used concurrently with blood thinners. It has been reported to induce heartburn and flatulence, sweating, lightheadedness and allergic reactions. The German Commission E (Germany's equivalent to the FDA in the United States) recommends a dosage of 4 g of fresh garlic daily.

Ginger: Ginger is often recommended for motion sickness, nausea and for loss of appetite. It has also been shown to prolong bleeding time and its use with aspirin or Coumadin should be avoided. Excessive consumption of ginger may also interfere with cardiac and anti-diabetic therapy. It is usually well tolerated but may cause stomach upset or heartburn in some people. For motion sickness it is taken one hour before traveling. The total daily dose is 2-4 g.

Ginkgo Biloba: Ginkgo biloba is one of the most popular plant extracts in Europe and has recently received approval in Germany for the treatment of dementia. There have been reports of spontaneous bleeding in people taking ginkgo and again, it should not be used with blood thinners. People who take anti-convulsant medications, such carbamazepine and phenytoin, or phenobarbital should not take gingko without the knowledge of a physician, because it reduces the efficacy of these medications. Ginkgo is generally safe and well tolerated with the most common adverse reactions being stomach upset, headache and dizziness. German Commission E recommends a dosage of 40 mg of ginkgo three times daily with meals for at least four to six weeks. Preparations should be standardized to contain 6% terpene lactones and 24% ginkgo flavone glycosides.

Ginseng: Ginseng is used to combat overall debility, as well as lack of energy and concentration. It has also been used as an aphrodisiac. There is tremendous variation in products labeled as ginseng; in one study, only 25% of the commercially available products actually contained ginseng. Nevertheless, ginseng enjoys widespread popularity. Siberian ginseng has been associated with falsely elevated digoxin levels (a heart drug used to treat congestive heart failure) by interfering with the test used to determine digoxin blood levels. Ginseng may also affect fasting blood glucose levels, so people who need to control their blood glucose levels should take ginseng with caution. Concomitant use with warfarin, heparin, aspirin and NSAID's should be avoided. Additionally, ginseng may cause headache, nervousness, and manic episodes in patients with manic-depressive disorders or psychosis or those on anti-depressants, particularly the monoamine oxidase inhibitors (MAOI) such as phenelzine (Nardil). Side effects include high blood pressure, restlessness, nervousness, insomnia, skin eruptions, edema and diarrhea. German Commission E recommends Asian ginseng be taken as 1-2 g of crude herb daily or as 100-300 mg of ginseng extract three times daily. Commercial products should contain at least 4%-5% ginsenosides.

Kava Kava: Kava Kava is recommended for anxiety, sedation and relaxation. Excessive sedation may result when Kava Kava is taken with other sedatives (flurazepam, temazepam) or anti-anxiety drugs, particularly alprazolam (Xanax). The toxicity of kava is increased if taken with alcohol. Until the clinical significance of Kava's action on platelet activity is determined, its use with blood thinners should be cautioned. Long-term use is not advised and is characterized by dry, flaking, discolored skin and reddened eyes. The herb is contraindicated in patients with certain types of depression because it may increase the risk of suicide. The daily dosage is the equivalent of 60 mg to 120 mg kava pyrones.

St. John's Wort: St. John's Wort is most widely used to treat mild to moderate depression, anxiety and seasonal affective disorder. Adverse reactions reported include stomach upset, allergic reactions, fatigue and restlessness. Photosensitivity is usually rare and is associated with higher dosages. Fair-skinned people should be particularly cautious. Concomitant use with other photosensitizers, such as piroxicam (Feldene) or tetracycline should be avoided. St. John's Wort should not be used with MAOIs (phenelzine) or selective serotonin reuptake inhibitors (SSRIs) such as Prozac, Zoloft or Celexa. St. John's Wort has been reported to prolong narcotic-induced (codeine) sleeping times as well as decreasing barbiturate-induced sleeping times and caution is advised when combining these medications. The herb also contains tannin and may interfere with iron absorption. The usual dosage is 300 mg of standardized extract three times daily or 450 mg twice daily. It may take up to four to six weeks to see desired effect.

Valerian: German Commission E recommends valerian for use in the management of restlessness and nervous disturbances of sleep. Valerian may cause headache, hangover, excitability, insomnia, uneasiness and cardiac disturbances. Given its sedative property it would be wise to avoid barbiturates (phenobarbital), sedatives (flurazepam, temazepam) and alcohol while on valerian. Valerian is also a tannin-containing herb and may interfere with iron absorption. Persons currently taking antidepressants should take valerian only under medical supervision. The usual dosage of the extract is 2-3 g, one to several times per day.

Source: When medicine and herbs don't mix, by Tammy Chernin, R.Ph. http://www3.healthgate.com

ASK THE ADVOCATE

"Ask the Advocate" is a new column where your specific questions regarding your legal rights and entitlements will be answered. Brad Cummings of the ACPD will host this column.

While governments take their time about compensation and treatment, many of us with HCV are not only suffering from the physical effects of the virus and the treatment, but also from the financial problems that a chronic illness creates.

Many of us have lost not only our health, but also our jobs and our homes. We now find it increasingly difficult to make ends meet, and cannot afford the vitamins and fresh fruits and vegetables we desperately need to help us fight this disease. Despite promises from all levels of government that "Care & Compassion" would be there for ALL sufferers of hepatitis C, the reality is that we have been in many ways abandoned.

For example:

Did you know that most applications for food and vitamin supplements are denied to persons with HCV, while those with HIV have an easier (although still difficult) time obtaining what are called Schedule C benefits in BC?

Did you know that often persons with advanced liver disease are being denied disability benefits, both federal (CPP) and provincial? Recently I was contacted by a member who is so ill that, should his compensation come through, he will get a very large sum because he is at end-stage liver disease. However, this same person had repeatedly been denied disability benefits on the grounds that he was not really ill! He was living on $500 a month and had no phone, and God only knows what he was eating. SHAME!!. Well, he called me, and I referred him to the Action Committee of People with Disabilities, and they went to bat for him. I am pleased to report that he recently obtained BC Benefits level 2, the maximum allowable ($771 a month)—which, realistically, is not much better. What he needs is at least $1200—an amount that would help him to eat properly, provide for adequate supplementation, and physiotherapy should he request it, and reduce his stress levels. Living below the poverty line when you have HCV only shortens your life. Period.

Often we hear from individuals who, having been denied benefits, go to hearings or tribunals on their own, assuming that the issues are simple and that reason will prevail. Forget it! Even with adequate representation the journey through the appeals process remains labyrinthine.

If you live in Victoria, there are people who can help you, and the service is free. For more information, please contact the Action Committee of People with Disabilities, Tel: 383-4105, and ask to make an appointment with Brad Cummings. They are located at 926 View Street, behind London Drugs. If you do not live in Victoria, please mail your questions in to Brad. Our mailing address is listed on page 2 of this bulletin.

TEN NEW WORDS:

1. AQUADEXTROUS (ak wa deks' trus) adj. Possessing the ability to turn the bathroom faucet on and off with your toes.

2. CARPERPETUATION (kar' pur pet u a shun) n. The act, when vacuuming, of running over a string or a piece of lint at least a dozen times, reaching over and picking it up, examining it, then putting it back down to give the vacuum one more chance.

3. DISCONFECT (dis kon fekt') v. To sterilize the piece of candy you dropped on the floor by blowing on it, assuming this will somehow 'remove' all the germs.

4. ELBONICS (el bon' iks) n. The actions of two people maneuvering for one armrest in a movie theater (airplane).

5. FRUST (frust) n. The small line of debris that refuses to be swept onto the dust pan and keep backing a person across the room until he finally decides to give up and sweep it under the rug.

6. LACTOMANGULATION (lak' to man guy lay' shun) n. Manhandling the "open here" spout on a milk container so badly that one has to resort to the 'illegal' side.

7. PEPPIER (pehp ee ay') n. The waiter at a fancy restaurant whose sole purpose seems to be walking around asking diners if they want ground pepper.

8. PHONESIA (fo nee' zhuh) n. The affliction of dialing a phone number and forgetting whom you were calling just as they answer.

9. PUPKUS (pup'kus) n. The moist residue left on a window after a dog presses its nose to it.

10.TELECRASTINATION (tel e kras tin ay' shun) n. The act of always letting the phone ring at least twice before you pick it up, even when you're only six inches away.

(U ASK—*Continued from page 7)*

velop malaise, weakness, or anorexia, and some become icteric [jaundiced]. Fulminant liver failure following HCV infection has been reported but is a rare occurrence. Antibodies to HCV (anti-HCV) almost invariably become detectable during the course of illness. Anti-HCV can be detected in 50-70 percent of patients at the onset of symptoms and in approximately 90 percent of patients in 3 months after onset of infection. HCV infection is self-limited in only 15 percent of cases. Recover is characterized by disappearance of HCV RNA from blood and return of liver enzymes to normal. - *National Institutes of Health Statement on Hepatitis C 1997.*

CLASS ACTION SUITS:

BRITISH COLUMBIA

Camp Church and Associates
Sharon Matthews / Kim Graham
4th Floor, Randall Building
Vancouver, BC V6B 1Z5
1-(888)-236-7797

Grant Kovacs Norell
Bruce Lemer
Grosvenor Building
930-1040 West Georgia Street
Vancouver, BC, V6E 4H1
Phone: (604) 609-6699 Fax: (604) 609-6688

Before August 1, 1986 or 1990-1991
Klein Lyons
David A Klein
805 West Broadway, Suite 500
Vancouver, BC V5Z 1K1
(604) 874-7171 or 1-(800) 468-4466
(604) 874-7180 (FAX)

also:

Dempster, Dermody, Riley and Buntain
William Dermody
4 Hughson Street South, 2nd Floor
Hamilton, Ontario L8N 3Z1
(905) 572- 6688

The toll free number to get you in touch with the Hepatitis C Counsel is 1-(800) 229-LEAD (5323).

ONTARIO AND OTHER PROVINCES

Pre 1986/post 1990
Mr. David Harvey
Goodman & Carr
200 King Street West
Suite 2300
Toronto, Ontario, M5H 3W5
Phone: (416) 595-2300
Fax: (416) 595-0527

TRACEBACK PROCEDURES:

INQUIRIES-CONTACT:

The Canadian Red Cross Society
4750 Oak Street
Vancouver, BC, V6H 2N9
1-(888) 332-5663 (local 207)

This information is for anyone who has received blood transfusions in Canada, if they wish to find out if their donors were Hep C positive.

CLASS ACTION/COMPENSATION

If you would like more information about class action/ compensation, you can contact:
Ron Thiel Tel. (250) 652-0608
E-mail: *thielron@pacificcoast.net*

National Compensation Hotline
Tel. 1-(888) 780-1111