



# hepc.bull

## BC's Hepatitis C News Bulletin

September 1998

Issue No. 4

### Research: Inactivating HCV

By Joan King-Diemecke

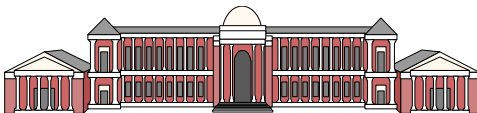
CAMBRIDGE, Mass., July 27 /PRNewswire/ -- "Pentose Pharmaceuticals, Inc. has received a Phase I Small Business Innovation Research (SBIR) grant from the National Heart, Lung, and Blood Institute (NHLBI) to support use of the Company's Inactine™ technology to eliminate viruses in blood samples collected in evacuated tubes for routine laboratory analysis."

"In laboratory studies to date, our Inactine™ compounds have effectively inactivated all major classes of viruses without modifying blood components or chemistries critical for diagnostic analysis."

These compounds are being developed so that laboratories may "spike" the contents of the test tubes they use to collect blood samples for lab tests. Needle stick injuries are a risk for thousands of healthcare workers, in spite of the use of gloves. There is no vaccine for hepatitis C. There is also no method to directly inactivate any virus contained in lab test tubes. Inactine™ selectively binds and irreversible changes nucleic acids so that the virus cannot replicate, and it has no effect on the blood cells or chemical analysis. It would be added to empty tubes when they are manufactured. This compound would not kill any virus, but would prevent it from multiplying. The company has presented data indicating that the product seems to work with viruses such as HIV, HAV, HCV, and CMV. It does not affect enzyme measurements, cell counts, coagulation times, or determinations of electrolyte and other blood test measurements.

This discovery would seem to indicate that the technology could eventually be used to inactivate viruses in blood to be transfused.

SOURCE: Pentose Pharmaceuticals, Inc.  
[http://www.fkpi.com/Release\\_Comp/Pentose.html](http://www.fkpi.com/Release_Comp/Pentose.html)



### Finding funds among biggest challenges of liver research

From Canada's National Newspaper, (c) 1997 The Globe and Mail

THE HEPATITIS C virus could hardly have found a better place to do its destructive work, far from the attention of research funding bodies.

"Liver research," says Dr. Sam Lee of the University of Calgary, "has always been abysmally funded."

It's a subject constantly high on the agenda for Lee and his colleagues in the Canadian Association for the Study of the Liver, a multidisciplinary group of doctors, scientists and healthcare providers whose expertise focuses on the liver. Dr. Lee, whose special interest is cardiovascular disturbances in liver disease, is the current CASL vice-president.

CASL's mandate is to provide national leadership in all aspects of research, teaching and patient care as it pertains to the liver. Although liver disease is the fourth leading cause of death in Canada, and an estimated 300,000 or more Canadians are infected with the hepatitis C virus specifically, it's an uphill battle generating research support.

"There is some research [on hepatitis C], a few pockets of activity, but there isn't as much as we would like," Dr. Lee remarks. "Governments don't want to invest money in very basic scientific research. It's always about that process of going from basic bench research to something that generates money in the market."

"The government keeps saying, 'Yes, yes, we're aware of that problem,' but they don't seem to have gotten the message."

There have been painful lines of controversy set in Canada in recent years with comparing the research emphasis among different diseases. While no one would like to see less research focus on the virus that leads to AIDS, for example, there is frustration in the research community that while the federal government has earmarked \$204.5-million over the next

*(Continued on page 6)*

### Kava Kava Contraindications

by Darlene Morrow, B.Sc.

A special thanks to Cindy for pointing me in the direction of continuing to research this herb for possible contraindications.

The recommended dosage for Kava Kava is 45 to 70 mg of kavalactones three times a day. For sedative effects, a dose providing 180-210 mg can be taken one hour before retiring.

High doses of Kava Kava, or use over a prolonged period of time (a few months to a year), can cause side effects. The most common problem is a condition of the skin. The skin can become dry and scaly especially the palm, soles of the feet, forearms, the back and shins. Withdrawal of the kava leads to a complete reversal of these symptoms.

Doses over 310g per week over prolonged periods can also cause low levels of albumin, protein, urea, and bilirubin, the presence of blood in the urine, increased red blood cell volume, decreased platelets and lymphocyte counts, and shortness of breath.

Given all of these possible problems— it is NOT RECOMMENDED for HCV patients to use kava kava.

### JIM THOMPSON

Dear friends:

*It is with great sadness that I must tell you that Jim Thompson (aged 53), our former office manager, passed away two days ago (August 16th). Jim had cirrhosis/end-stage liver disease and suffered a bleed. He was being considered for a transplant, I believe, but this was too late.*

*Jim was really loved by us all at the HeCSC Victoria office. He was efficient, kind, and inventive. He could always be counted on and made work easier for all of us.*

*We miss him very much.*

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*Dr. C.D. Mazoff (Squeeky)*

## SUBSCRIPTION FORM

Please fill out include a check made out to **HeCSC - Victoria Chapter**. Send to:

**Hepatitis C Society of Canada  
Victoria Chapter  
1611 Quadra St.  
Victoria, BC V8W 2L5**

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ Prov. \_\_\_\_ PC \_\_\_\_\_

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One Year Subscription: Donation \$10.00

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"I cannot afford to subscribe at this time, but I would like to receive the newsletter.

I am applying for a grant." \_\_\_\_\_

"I would like to make a donation so that others may receive the newsletter without charge" \_\_\_\_\_

(A limited number of newsletters will be available free of charge at group meetings, as well.)

**DISCLAIMER:** Neither HeCSS nor the hepc.bull can endorse any physician, product or treatment. Any guests invited to our groups to speak, do so to add to our information only. What they say should not necessarily be considered medical advice, unless they are medical doctors. The information you receive may help you make an informed decision. Please consult with your health practitioner before considering any therapy or therapy protocol. The opinions expressed in this newsletter are not necessarily those of the organisation.

**SUBMISSIONS:** The deadline for any contributions of hepc.bull is the 15th of each month. Please contact: Joan King-Diemecke at (250) 388-4311, [joan\\_king@bc.sympatico.ca](mailto:joan_king@bc.sympatico.ca), Darlene Morrow at 1203 Plateau Drive, N. Vancouver, BC, V7P 2J3, [hepcbc@sprint.ca](mailto:hepcbc@sprint.ca) or C.D. Mazoff at [squeeky@pacifcoast.net](mailto:squeeky@pacifcoast.net)  
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:

Newsletter Ads:

\$10 for 1/6th page, per issue

\$100 for 1/6th page, 12 issues (in advance)

\$20 for 1/3rd page, per issue (vertical or horizontal)

\$200 for 1/6th page, 12 issues (in advance)

whole page:

\$60 per issue

\$600 for 12 issues

1/2 page:

\$30 per issue

\$300 for 12 issues

## COMING UP:

**Castlegar/Grand Forks/Trail** Contact: Robin 365-6137.

**Cowichan Valley Hepatitis C Support Services**

Meetings: 1st Thursday 7-9 PM, 3rd Tuesday 10-12:00 noon, 464 TCH, Duncan. NEXT MEETINGS: Sept. 3rd, And 25th. Contact: Debbie 748-5450 or Leah 748-3432. [cvhepc@hotmail.com](mailto:cvhepc@hotmail.com)

**Enderby HepCURE** Meetings: Last Sunday of each month 2-4 PM, for High Tea, The Raven Gallery, 701 George St. NEXT MEETING: Sept. 27th. Contact: Marjorie 558-7488. [www.junction.net/hepcure/index.html](http://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: Sept. 26th. Contact: Michael 860-8178 or [eriseley@bcinternet.com](mailto:eriseley@bcinternet.com)

**Nanaimo HeCSC** Meetings: Second Thursday of each month, 7 PM, Health Unit—Central Vancouver Island, 1665 Grant St. NEXT MEETING: Sept. 10th. Contact: Helen 235-8759.

**Parksville/Qualicum** 305-335 Hirst St West, Parksville. Open daily from 9AM to 4 PM, M-F. Contact: (250)248-5551. [dbamford@island.net](mailto:dbamford@island.net)

**Penticton HeCSC** Meetings: Third Thursday of each month, 7-9 PM, Penticton Health Unit, Board rooms. NEXT MEETING: Sept. 17th. Contact: Leslie 490-9054. [bchepc@bc.sympatico.ca](mailto:bchepc@bc.sympatico.ca)

**Richmond Support Group:** Meetings: Fourth Tuesday of each month from 7 to 9 P.M. in the Health Unit, 3rd floor, room 3A. NEXT MEETING: Sept. 22nd. Contact: Guy 244-1704. [guy@fatherswithouthildren.com](mailto:guy@fatherswithouthildren.com) or Carmel at Richmond Health Unit, 279-4069.

**Sunshine Coast Support Group** Meetings: First Thursday of each month, 7:30 PM, Coast Garibaldi Health Unit in Gibsons. NEXT MEETING: Sept. 3rd. Contact: Karen 885-6413. [karen\\_felske@sunshine.net](mailto:karen_felske@sunshine.net)

**Vancouver CLF Support Group** Meetings: Second Thursday of each month, 7:30 PM, Nurses' Residence of VGH (12th and Heather). Signs will direct you. NEXT MEETING: Sept. 10th. Contact: the CLF 681-4588 or Herb 241-7766.

**Vernon HepCURE** Meetings: 1st Tuesday 12-2 PM and 3rd Tuesday of each month, 6-8 PM, the People Place, 3402 - 27th Ave. NEXT MEETINGS: Sept. 1st and 15th. Contact: Marjorie 558-7488. [www.junction.net/hepcure/index.html](http://www.junction.net/hepcure/index.html)

**Victoria HeCSC** Meetings: Last Wednesday of each month 1-3 PM, and again at 7-9 PM, St. John the Divine Church Lounge, 1611 Quadra St. (Entrance through the rear, marked Annex) NEXT MEETING: Sept. 30th Contact: 388-4311. [hepcvic@pacifcoast.net](mailto:hepcvic@pacifcoast.net)

## HOW TO REACH US:

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[hepcvic@pacifcoast.net](mailto:hepcvic@pacifcoast.net) TEL: (250) 388-4311

<http://www.pacifcoast.net/~hepcvic/hepcvic-1.htm>

**Reminder: Any change of address, phone number or postal code, please let your phone contact (in Victoria) or your chapter secretary know ASAP HeCSC Victoria Tel. (250) 388-4311**  
[hepcvic@pacifcoast.net](mailto:hepcvic@pacifcoast.net)

## REPRINTS

Past articles are available at a low cost. For a list of articles and prices, write to the hepc.bull, via Darlene Morrow at 1203 Plateau Drive, N. Vancouver, BC, V7P 2J3 [hepcbc@sprint.ca](mailto:hepcbc@sprint.ca)

# THANK YOU!

Victoria Chapter HeCSC acknowledges the personal donations, donations in kind and memorial donations received to date, and the following for discounts, donations of services, or equipment: Monk Office Supply, CFA 1070 Radio, Apple Canada, Pacific Coast Net and Island Internet, Inc., Mid-Island Realty, Questar Holdings, Unity Business Machines Ltd., Microsoft of Canada, Jim Pattison Group, Society Press & Graphics, CompuSmart and Paradon Computers. We also wish to acknowledge an anonymous agency which has generously supplied us with government surplus computer equipment.

## DANCE



**Band:** Rukus

50's, 60's Rock N' Roll, Rock-a-Billy, Country & Blues.

**Cost:** \$10.00 per person

**Where?:** Esquimalt Legion Hall  
522 Admirals Road

**When?:** Oct. 10th, 1998- 8:30 PM to 1:00 AM

Buy your tickets at C.D. CDs on Johnson St., at the office of HeCSC (1611 Quadra St.) or at the door.  
[Page 3](http://www.pacifcoast.net/~hepcvic/hepcvic-1.htm)



## SQUEEKY'S CORNER

Dear friends:

As you have by now gathered, very little is being done on our behalf by the Federal government, both with respect to compensation and research for a cure (see "Finding Funds" on p.1). As you also know, we are trying our best to find new ways to encourage the government and pharmaceutical companies to act on our behalf, and, to this end, we have established links with the HIV-AIDS community and several of their research organisations, most recently through the formation of the Canadian Hepatitis C Clinical Trials Research Group (HepCTRG).

To reflect this change in emphasis, we have designed a new more comprehensive database that will enable us to have more *useable* information. Numbers are one thing; but numbers that say something are much more effective. You are not obligated to share this information with us; but if you do, you have our strictest assurance that the information will remain strictly confidential. We hope to be able to use these more informative statistics to pressure the government into doing something for us. We want to remind them that we are ill, how we are ill, what we have tried, and so forth.

So, in order for us to continue to help you, we are asking you to help us by providing the following important information. Please fill in the form on the right and mail it back to us as soon as you can; or if you would prefer to maintain the integrity of your *hepc.bull*, just copy the information to a piece of paper and mail that into us instead.

The list of physicians and dentists will enable us to refer others, since many dentists do not take patients with hepatitis C, and some of our members do not know the names of physicians or specialists in their locality. Please rate your doctors—i.e., good, bad, and so forth.

### Living with Hepatitis: A Survivors Guide

A special thanks to Dr. Anderson who is offering this book at the reduced cost of \$20. This is a good resource book written for the general layperson. For more information please call (604) 876-5122.



**Bernie Lambert,**  
Service coordinator  
360 Bay Street, Victoria  
Phone: 360-2331  
web: <http://www.paradon.com>

Surname: \_\_\_\_\_  
First Name: \_\_\_\_\_

Street: \_\_\_\_\_  
City: \_\_\_\_\_

Province: \_\_\_\_\_ Postal Code: \_\_\_\_\_  
Email: \_\_\_\_\_

Area Code: \_\_\_\_\_ Home Phone: \_\_\_\_\_

Business Phone: \_\_\_\_\_  
Fax: \_\_\_\_\_

Name of Family Physician: \_\_\_\_\_  
Rating: \_\_\_\_\_

Name of Liver Specialist: \_\_\_\_\_  
Rating: \_\_\_\_\_

Name of Dentist: \_\_\_\_\_  
Rating: \_\_\_\_\_

Diagnosis: (i.e., Stage 1, TX, End Stage)  
\_\_\_\_\_

Treatment History: (i.e. INF, Combo, Herbs, Herbs + INF, None)  
\_\_\_\_\_

Special Notes:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

### Hep A ALERT in Coquitlam

There has been a Hep A ALERT posted for the Coquitlam area. Anyone that has eaten at the **Real Italian Deli** in Coquitlam in the past month should contact their physicians immediately.

Hep A can form a superinfection with Hep C and be fatal. If you haven't had your vaccine for Hep A—now would be a good time to do it.

The vaccine is provided free to people with HCV. Call your local Public Health Unit or see your family physician.

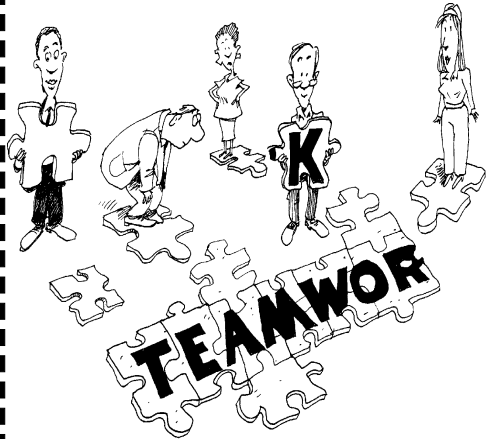
## VOLUNTEERS NEEDED HeCSC Victoria

A **librarian** is still needed to keep track of overdue materials and catalogue new items contributed to our collection. The work could probably be done during a 1/2 day in the office.

**Refreshments**—Trish has taken over refreshments for the evening meetings. We still need someone to purchase (with HeCSC funds) snacks and bring them to afternoon meetings, as well as prepare tea in the kitchen at St. John's.

**Minutes**—Alvina is doing a great job taking minutes at the afternoon meetings, and at the steering committee meetings, but we don't yet have a volunteer for the evening meetings.

We need a **volunteer for the office**. This entails answering the phone and perhaps data entry, thank you notes, etc.



### NEWS FROM HepCURE

Hi Everyone,

I am pleased to announce the arrival of HepCURE's new web page. You can view it at:

<http://www.junction.net/hepcure/index.html>

Marjorie

### Thanks, Ron!

Many special thanks to Victoria Chapter's Ron Thiel for many hours of hard work to make Joey's arrival here the success it was. [Page 4](#)



## 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 checks payable to **HeCSC Victoria Chapter**, and mail to **HeCSC, Attn. Squeaky, 1611 Quadra St., Victoria, BC V8W 2L5**. 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 check for a donation of \$2, if you can afford it. Mail to the same address as above.

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

### Ad. No. 8

I read Atwood and Updike. I listen to Christine Lavin and the Wallflowers. DWM, 40ish, semi-retired, financially sound. Mentally and physically sound, so far. I'm looking for someone kind, and intelligent that I can serenade and make gourmet meals for, talk to, and have fun with. Victoria area.

## HEPATICO

Hepatico testing will be complete in Sept. 1998. The results to date have been positive in showing a lowering of liver function tests.

Hepatico will be available in the fall through "Natura Liver Supplements and Education."

For more information please contact Lori @ (250) 727-6022 or Fax: (250) 383-4310.

*Advertisement*

## A Message from Dave

Some of you have asked me in conservation why I haven't been contributing to the last 3 newsletters. Its been a busy few weeks and a lot has changed since the spring; both on the HepC issue, and for me personally. Although I've never felt better in my adult life, I've been experiencing "the burn-out factor" and feel that I've taken on too many tasks to maintain indefinitely. I always enjoyed sharing my thoughts and feelings with all of you and I've met many of you over the years and hope to meet many more in the future.

It has been quite an odyssey, going from complete ignorance of what I had inside of me to end-stage liver disease in one weekend and having to go from what was already a desperate situation to having a liver transplant 2 years later. The psychological implications are mind-boggling, to say the least, and the changes I've put myself through are definitely book material. (It is said that there is a book in everyone).

As I've said before, one door closes and another one opens. You just have to find it and recognize it. Well, the door that opened I'm still walking through and in some ways I feel like Dorothy when she arrived in Oz—you know, the "Wow Factor."

I remember thinking to myself there should be a support group for people with Hep C (exact thoughts) about 3 months after my initial bleed. Little did I realize that there are many more of you out there in the boat, so to speak.

In October '94 we had our first local meeting (nationally the first meeting was held in June '94), and the rest, as they say, is history.

My own personal growth since that time has corresponded with all of yours and we are all in this together. It pains me to no end to see the divisiveness that seems to inevitably creep into any organization over time and I, for one, think it ultimately requires more energy to be divisive than it does to simply agree to disagree and let us not forget that we are all mere volunteers and are donating our time and energy freely because we believe in our cause (whew!).

So, it is with great regret (and a rather long-winded declaration) that I have to say that I will be stepping down as chairman and from the day-to-day activities of the local Victoria chapter. However, I will stay on as a consultant and advisor. My last function will be Joey's arrival on Friday (which will have come and gone by the time you read this). I will still be contributing to the newsletter on a regular basis, and we are having a fund-raising dance on Oct. 28 at the Esquimalt Legion with RUKUS, a great 50s/60s rock 'n roll band. In all honesty, I could never truly leave this organization.

I will stay on as national VP as long as I'm able to, and if I have to step down, I would

hope to continue as a resource.

Does it really look like I'm stepping down? Yes! Most definitely. I have a new chapter in my life to write.

More on that later.

*David Smith*

## Staging Relative to Treatment

*By Natalie Rock, BSN, RN*

It is felt that grading and staging of the liver pathology is helpful in deciding on when and whether to treat someone with chronic hepatitis. A person with chronic hepatitis C whose liver biopsy demonstrates chronic inflammation with piecemeal necrosis should be given the opportunity of treatment. It is felt that the sooner treatment is started the better the response rate. Therefore, those with less scarring and no cirrhosis are the best candidates for treatment.

Grading and staging the liver biopsy is also useful in evaluating the long-term efficacy of treatment. Post treatment liver biopsies are compared to pre-treatment biopsies to assess the degree of histological response. The grade of inflammation, stage of fibrosis and cirrhosis are compared. A positive outcome of treatment would be the lack of progression in the grade and stage of the biopsy post treatment.

Assessing the pathological changes is also important because some studies have suggested that the liver enzymes may not correlate well with histology, and improvement in histology may occur even though enzymes do not normalize. Histological improvement may also occur even though the virus is still present in the blood as determined by PCR. Nevertheless, there is a general correlation between the degree of histological improvement, liver enzymes, and viral load. Recent studies have also suggested that interferon treatment improves liver histology and that it is important to assess the response by follow-up liver biopsy.

Few studies have been done assessing liver histology on patients with normal enzymes, but it has been suggested that as many as 30% of these people may show evidence of chronic active hepatitis with at least grade 1 or 2 inflammation. A recent paper has also suggested that there may be indirect evidence of active inflammation by the demonstration of abnormal, and enlarged lymph nodes adjacent to the liver as seen by ultrasound.

Given the above information there are many factors that are taken into account when assessing a person who has been diagnosed with hepatitis C. This assessment requires not only the determination of hepatitis C antibodies, but also liver enzymes, hepatitis C RNA by PCR, possibly the determination of genotypes, ruling out of other liver diseases, and pathology determined by liver biopsy.

*References upon request.*

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## Understanding the Benefits of Standardized Botanical Extracts

Excerpts submitted by Dave Smith

From the American Journal of Natural Medicine, Oct. 1996, Vol. 3, No. 8

Commercial herbal preparations are available in several different forms: bulk herbs, teas, tinctures, fluid extracts, and tablets or capsules.

One of the major developments in the herb industry involves improvements in extraction and concentration processes. An **extract** is defined as a concentrated form of the herb obtained by mixing the crude herb with an appropriate solvent (such as alcohol and/or water).

When an herbal tea bag is steeped in hot water, it is actually a type of herbal extract known as an **infusion**. Teas often are better sources of bioavailable compounds than the powdered herb, but are relatively weak in action compared to tinctures, fluid extracts, and solid extracts.

**Tinctures** are typically made using an alcohol and water mixture as the solvent. The herb is soaked in the solvent for a specified amount of time, depending on the herb. The solution is then pressed out, yielding the tincture.

**Fluid extracts** are more concentrated than tinctures. Although they are most often made from hydroalcoholic mixtures, other solvents may be used. Commercial fluid extracts usually are made by distilling off some of the alcohol, typically by using methods that do not require elevated temperatures, such as vacuum distillation and counter-current filtration. However, some small manufacturers produce fluid extracts in a similar manner to tinctures via a "cold percolation" process.

A **solid extract** is produced by further concentration of the extract by the mechanisms described above for fluid extracts as well as by other techniques such as thin layer evaporation. The solvent is completely removed leaving a viscous extract (soft solid extract) or a dry solid extract depending upon the plant, portion of the plant or solvent used, or if a drying process was used. The dry solid extract, if not already in powdered form, can be ground into coarse granules or a fine powder.

The **potencies** or strengths of herbal extracts are generally expressed in two ways. If they contain known active principles, their strengths are commonly expressed in terms of the content of these active principles. Otherwise, the strength is expressed in terms of their concentration. For example, tinctures are typically made at a 1:5 concentration. This means one part of the herb (in grams) is soaked in five parts liquid (in milliliters of volume). This

means that there is five times the amount of solvent (alcohol/water) in a tincture as there is herbal material.

A 4:1 concentration means that one part of the extract is equivalent to, or derived from, four parts of the crude herb. This is the typical concentration of a solid extract. One gram of a 4:1 extract is concentrated from four grams of crude herb. Since a tincture is typically a 1:10 or 1:5 concentration while a fluid extract is usually 1:1, a fluid extract is typically at least four times as potent and a solid extract 40 times as potent when compared to an equal amount of tincture.

Typically, one gram of a 4:1 solid extract is equivalent to 4 ml of a fluid extract (1/7<sup>th</sup> of an ounce) and 40 ml of a tincture (almost 1 1/2 ounces). Some solid extracts are concentrated as high as 100:1, meaning it would take nearly 100 grams of crude herb, or 100 ml of a fluid extract (approximately 3.5 ounces), or 1,000 ml of a tincture (almost 1 quart) to provide an equal amount of herbal material in 1 gram of a 100:1 extract.

In the past, the quality of the extract produced often was difficult to determine as many of the active principles of the herbs were unknown. However, recent advances in extraction processes, coupled with improved analytical methods, have reduced this problem of quality control. The concentration method of expressing the strength of an extract does not accurately measure potency since there may be great variation among manufacturing techniques and raw materials. By using a high quality herb (an herb high in active compounds), it is possible to have a more potent dried herb, tincture, or fluid extract compared to the solid extract that was made from a lower quality herb. Standardization is the solution to this problem.

**Standardized extracts** (also known as guaranteed potency extracts) refer to an extract guaranteed to contain a "standardized" level of active compounds. Stating the content of active compounds rather than the concentration ratio allows for more accurate dosages to be made.

The best scenario for determining the quality of an herb is the level of active components or key biological markers. Regardless of the form the herb is in, it should be analyzed to ensure that it contains these components at an acceptable standardized level. More accurate dosages can then be given. This form of standardization is generally accepted in Europe and is beginning to be used in the United States as well.

This form of standardization, i.e., stating the content of active constituents versus drug concentration ratio, allows for dosage to be based on active constituents. For example, in Europe *Silybum marianum* extracts dosage levels are based on their active constituent levels rather than drug ratio or total extract weight, e.g., 70 mg silymarin for *Silybum marianum*. This type of dosage recommendation provides the greatest degree of consistency and assurance of

quality.

Although referred to in terms of active constituents, it must be kept in mind these are still crude extracts and not isolated constituents. For example, an *Uva ursi* extract standardized for its arbutin content, say 10%, still contains all of those synergistic factors which enhance the active ingredient's (arbutin) function.

### List of quality control steps necessary for the registration of plant-based drug formulation.

1. Selection of suitable plant material.
2. Botanical investigation using organoleptic and microscopic techniques.
3. Chemical analysis using appropriate laboratory equipment.
4. Screening for biological activity.
5. Analysis of active fractions of crude extracts.
6. Isolation of active principles.
7. Determination of chemical structure of active principles.
8. Comparison with compounds of similar structure.
9. Analytical method developed for formulation.
10. Detailed pharmacological evaluation.
11. Studies performed to determine activity and toxicity of formulation.
12. Studies on absorption, distribution, and elimination of herbal compounds.
13. Clinical trials performed to determine activity in humans.
14. Registration by National Drug Authorities.

## Woman Lives in Fear after Contracting Hepatitis C

By Jenn Malcom  
SPECIAL TO THIS WEEK  
Sunday Edition, May 17, 1998

She is living with a rare blood disease, has survived a heart attack and several strokes, but now she may die from what saved her.

Cathie Norwick, an Oshawa resident, found out just a few months ago the units of blood which saved her life may now kill her because the blood was tainted with hepatitis C.

Her views on the compensation package offered by the government are strong and she believes everybody who contracted the virus from bad blood should receive compensation.

"I wish the government would stop thinking about the money for a change and think about humanity," said Mrs. Norwick.

She believes families should also be compensated if the victim actually dies from hepatitis C.

Mrs. Norwick, 44, suffers from a rare blood disease that caused her to have a heart attack

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[\(Continued on page 7\)](#)

(HCV Funding-Continued from page 1)

five years specifically as part of an AIDS strategy, there appears no research strategy whatsoever when it comes to hepatitis C.

"HIV is a special kind of problem, and perhaps it did need special attention because it is so lethal and so new," allows Dr. Lee, who nonetheless would like to see more attention to viral hepatitis.

The numbers would certainly seem to warrant it. Assuming conservatively that 15 per cent of those infected with the hepatitis C virus develop end-stage liver disease, then 1,800 of the anticipated 3,000 deaths from Canada's tainted blood problem of the eighties will be due to hepatitis C, just to take that one scenario.

## Drug Company Update

by Darlene Morrow

We have continued to hear back from many of the drug companies doing investigational work into HCV (Vertex, Agouron, GlaxoWellcome, Chiron, Gilead and Ribogene). Unfortunately, they are all in the developmental stages at this time. That means they have yet to discover the protease inhibitors to do the work. However, they have all agreed to keep us on file and we will keep in touch with them. We are also working very hard right now on setting up some sort of Clinical Trials Registry for HCV. As this progresses we will keep you informed. In keeping with the above, we have sent the drug companies an issue of the *hepc.bull* so that they can see the work that we are doing. And we will continue to research for more companies.

Nabi has continued to make the news. (Please see the insert below.)

We are also working very hard right now on setting up some sort of Clinical Trials Registry for HCV. As this progresses we will keep you informed.

Meanwhile, 300,000 or more Canadians, and closer to 450,000 in recent Health Canada estimates, are carrying the hepatitis C virus.

The Canadian Hemophilia Society, which has fought long and hard on behalf of the many HIV-infected patients within its membership, remarks indignantly that "we have not one identified nickel of dedicated research money coming [for the study of hepatitis C] from the federal government," in the words of CHS president Durhane Wong-Rieger in Montreal.

Even the Canadian Liver Foundation, whose primary mandate has been to raise funds to support research in hepatology, is openly frustrated.

"We are strapped for funds for research," says CLF president Mortimer Bistrisky. "We cannot do the projects that require the big bucks,

today further gives the disease an image of disrepute

By the same token, the sub-specialty of hepatology has not attracted many medical professionals. While the specialists Canada has produced are of the first rank and have distinguished themselves internationally, there are simply very few of them—perhaps 30 dedicated hepatologists today, according to Bistrisky.

The liver is a very large organ and typically develops disease conditions slowly, up to three decades in the case of end-stage liver disease caused by hepatitis C. This undermines a sense of urgency in dealing with it.

Breast cancer and AIDS, to take notable recent examples of successful campaigns for research funding, have well-organized constituent groups to do the lobbying, another sharp contrast with liver disease.

While basic research into the cellular mechanisms pertaining to the course of hepatitis C is lacking, research on the treatment front is rather more robust.

"There's a fair amount of that and most of it is driven by the pharmaceutical companies," observes Dr. Lee, who does get a certain amount of money per patient from such firms which he can use in part for laboratory costs.

With an estimated 150 million people in the world infected with the hepatitis C virus, the potential market is significant, and while "interferon is still the mainstay of treatment, it's not that effective," observes Dr. Lee. "Three-quarters [of patients who take the treatment] don't have a good result."

One focus of current exploration is to combine interferon with ribavirin, an anti-viral drug that has been used for other infections but is not yet specifically approved for use in Canada for the treatment of chronic hepatitis C.

## "...funding for hepatitis C research is practically non-existent."

so to speak. Hepatitis C is an equally large concern as HIV, but funding for hepatitis C research is practically non-existent."

Some of the obstacles in generating research funds and even public awareness when it comes to hepatitis C and other liver disease:

Liver disease is reflexively thought by many people to mean cirrhosis caused by alcoholism. In fact, there are over 100 liver diseases and over 40 causes of cirrhosis, many of which have nothing to do with alcohol including hepatitis C (alcohol will worsen any cirrhotic condition, of course).

Along with associations of alcohol abuse, illicit intravenous drug use as a leading cause of transmission of hepatitis C in North America

## FROM THE NABI PRESS RELEASE:

The first animal study, originating from a Cooperative Research and Development Agreement (CRADA) between Nabi and the Centers for Disease Control (CDC), was reported by Dr. K. Krawczynski of the Hepatitis Branch of the CDC. Dr. Krawczynski described preliminary results of multiple intravenous infusions of Nabi-Civacir administered over an 89-day period to a chimpanzee after experimental infection of the animal with HCV. Although HCV RNA levels and HCV antigen levels increased steadily in the control animal throughout the dosing period, the Civacir-treated animal became HCV antigen negative and HCV RNA negative and remained so after about 42 days of dosing.

Dosing of both control and Civacir-treated chimpanzees was ended on day 89, and the chimps continue to be followed to determine the long-range effects of the earlier treatment. These results from ongoing animal studies suggest that the elevated level of anti-HCV in serum maintained by multiple infusions of Nabi-Civacir may be associated with early termination of viremia and the possible elimination of HCV antigen from liver cells during experimental HCV infection.

In a separate investigational study also reported at the meeting, Dr. M.W. Yu of the Division of Hematology, Center for Biologics Evaluation and Research, Food and Drug Administration, described the results of a study in which the HCV-neutralising capabilities of Nabi-Civacir was evaluated in chimpanzees. In this study, HCV was incubated in vitro with either Nabi-Civacir, or with albumin, or with standard intravenous immune globulin prior to its injection into chimpanzees. Both control animals developed evidence of HCV infection (HCV RNA and elevated ALT levels, and later anti-HCV) within 10 weeks, whereas the animal receiving HCV mixed with Nabi-Civacir has been followed for more than 1 year without evidence of infection. These results suggest that neutralising antibodies to HCV are present in Nabi-Civacir, which is prepared from virally-inactivated anti-HCV positive donor units, and that such a product might be useful in the future for the prophylaxis or possible treatment of HCV infections.

There were no adverse effects of Nabi-Civacir in either of the chimp studies and additional studies will evaluate the safety of the drug.

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## Hepatitis C Tainted Blood Litigation – Legal Fees

by David A. Klein  
Klein, Lyons—Vancouver, B.C.

Klein Lyons is a Vancouver law firm that specializes in class actions. We represent over 500 people who were infected with hepatitis C through tainted blood products. Most of our clients were infected before 1986. But, we also act for many post-86 victims.

Three of the most common questions hepatitis C victims ask when they call our office are: "Do I need a lawyer to obtain compensation?", "How much are the legal fees?", and "How much will I have to pay if I don't receive any compensation?"

### Do You Need a Lawyer?

While it is possible to pursue a claim for compensation without the help of a lawyer, victims are generally more successful and receive higher compensation, with legal assistance. Settlement agreements are usually complicated and often quite stringent about the documentation required to support a claim. Your lawyer will obtain copies of all the relevant hospital and medical records, order the needed physician reports, retrieve information from witnesses, and represent you in all dealings with the defendants.

Your lawyer will also act as your advocate in any settlement negotiations and can advise you on what constitutes fair and equitable compensation. Your lawyer will not agree to any settlement without your consent, and will advise you on whether you should accept the compensation package or pursue an individual lawsuit.

### Legal Fees

Klein, Lyons accepts hepatitis C tainted blood cases on a "contingency fee" basis. That means we are paid a percentage of any damages award you receive. We are not paid any legal fee until the client receives his or her compensation. When setting our fees, we take into consideration such factors as anticipated risk, cost and complexity of the case.

Our contingency fee for hepatitis C tainted blood cases is 33.33% of your settlement or damages award plus disbursements, GST and PST. If you decide not to pursue your claim, you will be required to reimburse us for out of pocket expenses but we will waive our legal fees. If you decide to change lawyers or act on your own behalf to pursue your claim, you will be asked to pay for the outstanding disbursements as well as a reasonable fee for our time.

We recognize the physical, emotional and financial hardship that this disease inflicts on its victims and their families. If we are unable to obtain compensation for a client, there will be no charge for legal fees or disbursements.

If you would like more information about any aspect of this litigation, please contact us at (604) 874-7171 in Vancouver; (250) 388-9343 in Victoria, or visit us online at [www.kleinlyons.com](http://www.kleinlyons.com)

(Woman Lives in Fear: Continued from page 5)

and several mini strokes. She started receiving blood in April, 1990 and the last unit of blood she received was in 1996. She could have contracted hepatitis C anytime between 1990 and 1996.

Mrs. Norwick gets "wonderful" support from family and friends and says "the hardest part is trying to survive it all-I'm not ready to die yet."

She knows the doctors and nurses are not at fault. "They take the blood on honour...they administer the blood to save lives and expect the blood is safe. This time, obviously, it wasn't." Now Mrs. Norwick's son, 16, is left wondering what will happen to him, if his mom dies.

Right now, Mrs. Norwick suffers from major migraines caused by blood clots which are caused by the original blood disease. She also suffers from chronic fatigue and memory loss that could be from the blood disease or from hepatitis C.

She doesn't know if she will be compensated by the government but, she is prepared to sue if she isn't. She feels bad for the people suffering from the virus who have young children.

Newspaper reports have suggested the Childhood Cancer Foundation-Candlelighters Canada is also urging the government to reconsider its decision and compensate all victims who contracted the virus through bad blood. The foundation supports all the victims but, in particular, their children.

Because the disease can take up to 20 years to surface, many anxious parents of young cancer victims now have that to fear as well, said Eleanor Pask, executive director for the Childhood Cancer Foundation-Candlelighters Canada.

"I hope the government does the right thing. They must know in their hearts what that is. Otherwise, hospitals and doctors will be held libel and that will be more expensive in the long run."

In March, the federal government and the provinces agreed the 22,000 Canadians who were infected with hepatitis C through tainted blood from Aug. 1, 1986 to June 30, 1990, would be compensated through a \$1.1 billion fund

"Twenty per cent of the people with hepatitis C will die from it. It's like a game of 'Russian Roulette' as to who the 20 per cent will be," said Mrs. Norwick. Because of the other health problems she has suffered and is suffering from, she believes she may become one of the 20 per cent.

Ontario Premier Mike Harris and the premiers of Quebec and British Columbia are now demanding that the deal be reopened to compensate all victims of tainted blood.

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## CLASS ACTION SUITS:

### BRITISH COLUMBIA

Camp Church and Associates  
Sharon Matthews / Kim Graham  
4th Floor, Randall Building  
Vancouver, B.C. V6B 1Z5  
1-(800) 689-2322

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  
Klein Lyons  
David A Klein  
805 West Broadway, Suite 500  
Vancouver, B.C. 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. [Page 8](#)

### CLASS ACTION/COMPENSATION

If you would like more information about class action/compensation, you can contact:  
Tricia Plunkett Tel. (250) 479-5369  
E-mail: [plunket@islandnet.com](mailto:plunket@islandnet.com)

Natura Liver Supplements & Education  
 1321 Finlayson Street  
 Victoria, B.C. V8T 2V5  
 Fax: 250-383-4310  
 Phone: 250-727-6022  
 E-Mail: [natura@fcmail.com](mailto:natura@fcmail.com)

*Please help us to help each other...remember, without your support we will not be able to achieve this.*

## Natura Liver Supplements & Education

### INFORMATION SURVEY

**ARE YOU, OR SOMEONE YOU LOVE HEPATITIS C POSITIVE & CONCERNED ABOUT YOUR FUTURE? IF SO, PLEASE HELP US TO HELP YOU AND OTHER CANADIANS.**

As members of the HCV community at large, we like many of you are apprehensive about our future and our Government's lack of concern. It would appear we are left to fend for our own health & future. This is where our company is hoping to make some positive changes. We need your support to ensure that this is achieved.

My name is Lori. Last year I was diagnosed HCV positive. My enzyme count was shockingly high. I made the necessary changes; proper rest, better eating habits, exercise and less stress (work), along with taking vitamin, mineral & herbal supplements. All of these changes lowered my enzyme count considerably but I found that I could not afford all the supplements required to give my liver a fighting chance. It also didn't cure my disease. I don't relish the thought of possibly going on interferon or having a liver transplant as my partner did. Interferon is no cure and organ donors are already at a dangerously low level in Canada. Thus the reason for our company.

#### Company Objectives & Goals:

- Mail order vitamin, mineral & herbal supplier. We will get the highest quality products available for the liver. The cost will be considerably less than if you were to purchase these products from a vitamin store.
- Free nutritional counseling just a telephone call away.
- Liver education and lifestyle awareness seminars.
- Percentage of profit to go for HCV research and development.

**Mission Statement: "to provide the highest quality vitamins & herbal supplements using standardized extract only."**

Please help us get started by completing the following survey and mail it to the above address.

Name/Address & Age

Phone/Fax #

Vitamins & Brand Names

Approximate monthly vitamin costs

Store purchased from & usual method of payment

**Which of our services would you be interested in:**

Nutritional counseling    Vitamins    Education    None of our services