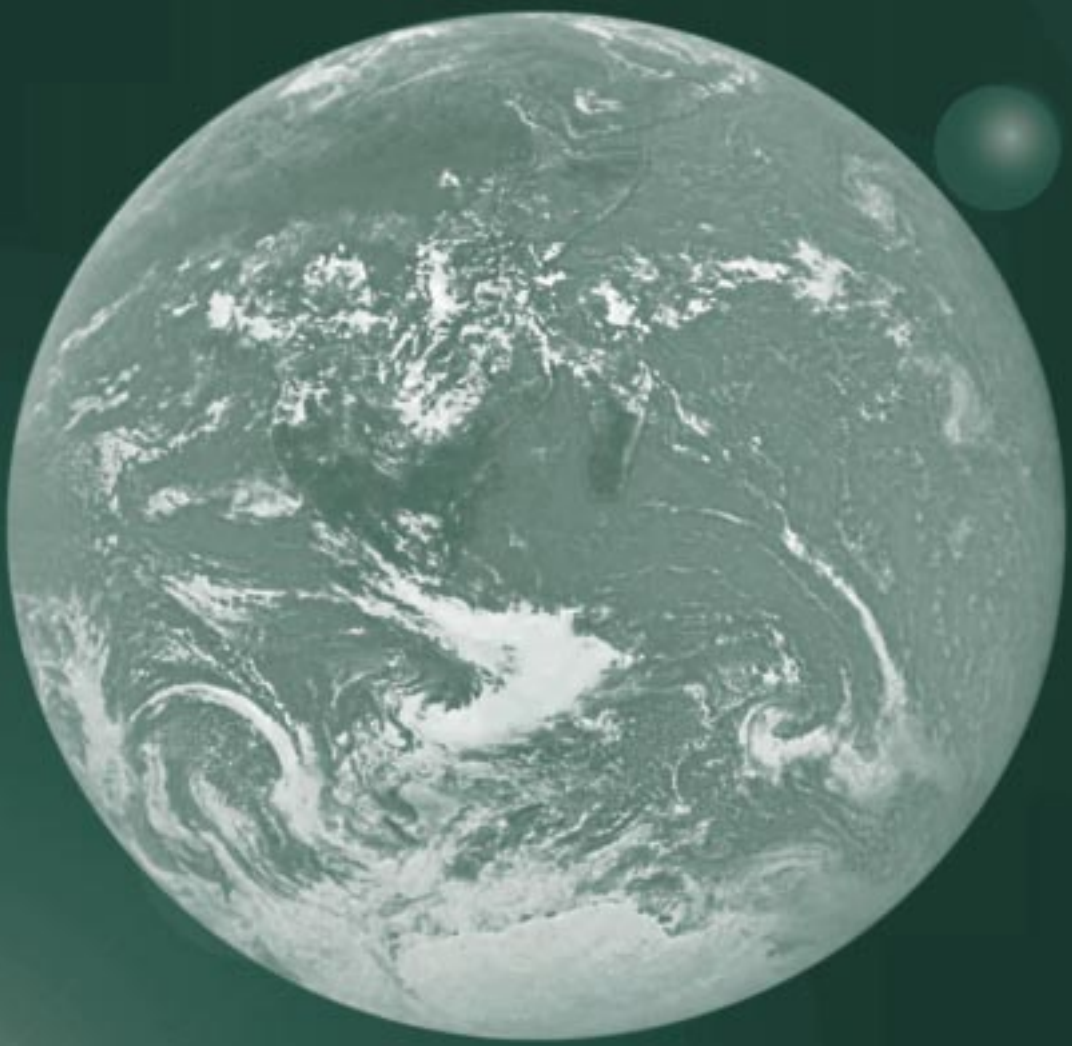
living+

NEWS AND TREATMENT INFORMATION FROM THE BC PERSONS WITH AIDS SOCIETY NOV / DEC 1999 • ISSUE 3



WORLD AIDS DAY

DECEMBER 1

THIRD ANNUAL

Yuletown

A Festive Gathering

DECEMBER 21 & 22

at the BCPWA LOUNGE

11 AM *to* 4 PM

Music & Crafts ✯ Christmas Treats ✯ Refreshments

Children Welcome ✯ Fun with Friends

AIDS VANCOUVER

TAKING CARE OF EACH OTHER

BRITISH COLUMBIA PERSONS WITH AIDS SOCIETY

SANTA ILLUSTRATION BY DEBRA ROONEY

inside

features

treatment information

BRITISH COLUMBIA
PERSONS WITH AIDS
SOCIETY

The British Columbia Persons with AIDS Society empowers persons living with HIV disease and AIDS through mutual support and collective action. The Society has over 4,000 members.

Living+ Editorial Board
Tom Mountford, Wayne Campbell, Ron Fremont, Michael Scroda

Treatment Information Editorial Board
Tom Mountford, Glen Hillson

Managing Editor
Michael Scroda

Copy editing Michael Scroda, Kasandra Van Keith

Design and Production
Working Design

Contributing Writers
Glen Hillson, Pierre Beaulne, Richard Ahn, Jackie Haywood, Peter Thomas, Rani Sandhu, Kasandra Van Keith, Paula Braitstein, Diana Peabody, Daniel O'Neill, Dr. Chris Tsoukas, Michael Scroda

Photography Pierre Beaulne, Michael Scroda

Distribution/Hand Delivery
Michael Scroda, Wayne Campbell, Kasandra Van Keith

Positively Happening
Kasandra Van Keith

Advertising Sales
Michele Clancy (604) 377-3584

Director of Treatment Information Paula Braitstein

Director of Communications and Marketing
Pierre Beaulne

living+

TEL (604) 893-2255
FAX (604) 893-2251
TOLL FREE 1-800-994-2437
EMAIL living@parc.org
BCPWA ON-LINE
www.bcpwa.org
1107 Seymour Street, Vancouver, BC V6B 5S8

think +

opinion and editorial

'99 was a very good year

Glen Hillson

This past year the British Columbia Persons With AIDS Society provided leadership on issues impacting those of us living with HIV disease and AIDS. By the time you read this our 1999 annual general Meeting will have taken place and you, the members, will have elected a new board of directors to lead the work of our organization through the next year.

As Chair, I wish to extend a big "thank you" to those members of this year's board who have so generously dedicated their time, effort, dedication, compassion, solidarity and wisdom toward the fulfillment of the Society's mission, which is, to empower people living with HIV/AIDS through mutual support and collective action.

I also wish to thank the members, the volunteers and the staff who have through their support and solidarity helped us to lead effectively.

Our membership has continued to grow and change as the AIDS epidemic impacts new communities, cultures and populations. We now have a membership of over 4000 individuals from every conceivable community, culture, background and age. With an ever-changing landscape, the challenges to the Society are constantly evolving. I am very excited about the many initiatives that we have undertaken in the past year in responding to new demands.

For example we have challenged the provincial government to start providing adequate funds to PWAs on income assistance in order to meet the high costs of living with AIDS. As a result of our ground-breaking success in winning Schedule C awards, not only are many of our members receiving hundreds of dollars more per month, but the government worked with us to develop a report and recommendations that would provide a uniform health allowance for all PWAs on income assistance. The report is currently under review by the government.

As you read this, you are holding in your hands Issue #3 of **Living+**, which was launched this summer. Our new magazine has received enormous praise from readers. Sharing information about living with HIV/AIDS is perhaps the single most important thing we do as an organization. In particular, our magazine and website are lifelines to those who are less connected.

Throughout its proud history BCPWA has set an example for PWAs around the world through our hard work and numerous accomplishments.

For years, the Society has been a leader in providing support to prisoners with HIV/AIDS through the entirely volunteer Prison Outreach Program – POP. This year we have taken that work several steps further by providing staff support for the program, and by turning up the heat on both the provincial and federal governments to stop robbing prisoners of their right to health care.

continued on page 14

There's a lot of stuffing and mailing goin' on, as volunteers prepare AGM packages and get them ready to be mailed to the membership.

Provincial AIDS consultation slammed

A draft document that was produced by the HIV/AIDS Division of the BC Ministry of Health about Provincially Mandated AIDS Organizations has been labeled "a vicious, sustained and unwarranted attack" on the BC Persons With AIDS Society (BCPWA).

The "consultations" were originally undertaken purportedly "to determine perspectives on the issue of provincially mandated organizations". However, a draft document released about the consultations "contains several vitriolic, mendacious and utterly false attacks on BCPWA reported as if they were established facts," according to a blistering letter sent to the HIV/AIDS Division by the Chair and Executive Director of BCPWA. The draft document also claims the Positive Women's Network "offers virtually no services or programs outside the lower mainland" and accuses AIDS Vancouver's Training Institute of "parachuting into communities, without involving… or even notifying" local AIDS groups. It is harshly critical of the Wings Housing Society, implying differential treatment of PWAs outside of the lower mainland in the provision of housing subsidies.

Interestingly, the consultations did not seek any meaningful input from people living with HIV disease and AIDS. "If the Ministry is sincerely interested in finding out what is and isn't working for PWAs in BC then they should consider asking PWAs, whose views are the only ones of relevance. In contrast, the history among AIDS organizations of competition, conflict, and fighting over pots of money all but disqualifies them from attempting dispassionate assessment of their fellows," says the BCPWA letter in response to the draft.

Vancouver Island Compassion Club opens

People with HIV disease and AIDS on Vancouver Island who use marijuana for medical purposes now have their own Compassion Club to access. On October 1, 1999, the Vancouver Island Compassion Club opened within a few blocks of the Jubillee hospital area.

The organization's mandate is to provide affordable, medical-grade cannabis to those with a legitimate medical need and promote research into the use of medicinal marijuana. "We believe that people suffering from life-threatening or incurable diseases should have access to a safe supply of cannabis from an environment conducive to healing," says Philippe Lucas, Co-Founder of the Vancouver Island Club.

This past July, it was announced that the Canadian HIV Trial Network and Community Research Initiative would receive $1 million to research the medical benefits of pot. It is expected that there will be up to 100 people across Canada participating in this clinical trial and the federal department of health confirmed that they are also reviewing a business plan to develop a government-approved marijuana-growing operation.

For more information on the Vancouver Island compassion Club you can call (250) 595-1146.

NIAC hires a new Executive Director

The North Island AIDS Coalition, (NIAC) has announced the appointment of Phillip Haines as Executive Director. Working with a volunteer Board of Directors, Philip will be responsible for the overall management and direction of the Society.

The mission of the organization is to ensure AIDS and HIV infection are well understood in North Vancouver Island communities, and that people living in the North Island who are affected by HIV/AIDS feel welcomed, included, and supported by their communities.

Prior to being hired as Executive Director, Phillip worked as an Advocate with the BC Persons

continued on next page

news reel

NEWS FROM HOME AND AROUND THE WORLD

Glen Hillson receives a $900 donation to the AIDS Walk on behalf of prisoners who raised money for the event.

news reel

NEWS FROM HOME AND AROUND THE WORLD

With AIDS Society. BCPWA wishes him all the best in his new position.

AIDS Walk huge success

AIDS WALK '99 broke all previous records with record donations for BC's largest fund-raiser for AIDS. $400,000 dollars was collected in pledges and corporate donations — an increase of $100,000 dollars over last year's WALK. More funds are expected to flow in during the next few weeks from individuals who call the toll-free AIDS Walk line: 1-877-915-WALK (9255).

This sets a new record for total proceeds raised by any AIDS WALK held in Vancouver since they started in 1986. "We are deeply grateful for the tremendous support shown by the community to help those of us living with HIV disease and AIDS," said Glen Hillson, Chair of the BC Persons with AIDS Society.

7,000 people attended the Walk and all proceeds go directly to support programs and services for persons living with HIV disease and AIDS. Twelve local community groups in BC will benefit from the AIDS WALK '99 including: the BC Persons With AIDS Society, AIDS Vancouver, the Dr. Peter AIDS Foundation, Friends for Life Society, Healing Our Spirit, Langley HIV/AIDS Community Coalition, McLaren Housing Society, Peace Arch Community Services, Positive Women's Network, The Hummingbird Kid's Society, YouthCo AIDS Society, and the Wings Housing Society

Synergistic Energy eXchange, the review

By Clyde Yalbeck.

Watching the cast of S.E.X., the latest production of Theater Positive, one might think they were a gypsy tribe of adult Teletubbies coming to town to entertain. But they also have a message to bring. That the war is still here and we are still fighting. Like all good soldiers keeping up the fight, this time with honesty and humor.

This production fuses the lines between therapy and theater. As the masks are peeled off the audience is invited into a collage of honest feelings, memories, hopes and dreams. At first the audience was too uncomfortable to laugh out loud, but Bernie's over-the-top gesture to the heavens above gave the audience permission to laugh out loud. From that point on a bond was made between cast and audience. Mitch and Elizabeth rode a razor-sharp edge of emotions. John, Jackie, Ron and Ian's deliverance was simple and from the heart. And wouldn't you want Oliv to tell you a bedtime story? The audience rose to Marcus Mosley's rendition of positive blues. I've had the opportunity to see Oliv, Marcus and Mitch on stage for many years and in true form, a true artist submits to the big picture.

Jake Thomas, the director, herded this team of wild horses, comprising, compacting, and presenting to the audience a palatable buffet of facts from the lives of these people reminding us all that you don't have to be infected, to be affected by HIV/AIDS.

The War Goes On....

by **RICHARD AHN**

Y2OK bcpwa gets ready for year 2000

By now, you've probably heard enough about Y2K. "Y2K this, Y2K that..." You may know it's a serious problem, but what exactly is it and how serious is the problem?

History
Also known as the "Y2K Bug" or the "Millennium Bug," the Y2K Problem is an acronym for the Year 2000 Problem. The Y2K Problem poses potential hazards that can occur with computer systems beginning January 1, 2000. The reason for this is that back in the 1960's and 70's computer programmers and hardware manufacturers used a two-digit year system instead of a four-digit system in order to conserve valuable and expensive computer memory. At that time this seemed like the most efficient and logical thing to do, since the year 2000 was 30 to 40 years away.

Why does this cause a problem?
Up until recently there were no problems involved with this format, and the two-digit year format became the convention even as computer technology advanced. Although the microchip became more sophisticated and more powerful, the old code was still being used in most pre-1995 computers and programs. Since this code is based on a two-digit year system, older computers may not be able to properly recognize the upcoming year as the year 2000. Instead, they will see it as the year 1900. This may cause havoc in databases where the difference between the year 1999 and the following year (year 2000) will register as -99 (or 99) years. Some computer programs may malfunction, automated processes and computer systems may shut down, data may become corrupt or unusable; the effects may be widespread and varied. Furthermore, it may also cause major problems for major organizations and services that depend on computers for their normal operation, resulting in potentially large-scale disruptions in banking, food distribution, and power.

What has BCPWA done to remedy this problem?
BCPWA is well on track with our preparations for the new millennium. The Y2K Contingency Planning Committee is making every effort to ensure that our Y2K plan includes reasonable steps to safeguard against the issues and risks associated with the transition from the year 1999 to the year 2000.

The beginnings
During January 1999, a BCPWA representative attended the Y2K conference presented by the Health Association of BC, which resulted in the formation of the Y2K Contingency Planning Committee at BCPWA. This committee has been utilizing various resources provided including "The Government of British Columbia Health Authorities Year 2000 Project Contingency Planning Road Map" to gather information and analyze the Y2K-readiness of the Society.

What we have done
Much work has been completed, some of which is:

- A risk assessment of the computer inventory was conducted
- Equipment testing procedures were developed and implemented
- Remedial strategies for conversion and / or replacement of non-compliant devices and equipment were designed and implemented
- Contingency plans for mission-critical and mission-urgent equipment that cannot be made Y2K compliant were designed and implemented
- Advice, guidelines and recommendations regarding funding requirements associated with achieving Y2K readiness were developed and provided to the Board and Executive Director
- Recommendations were made on strategic directions that ensure technical resources are used optimally

Where we are now
We are currently in post-implementation testing of the new Membership, Advocacy and CHF databases, and are close to completing contingency plans.

What I did last summer

A member discovers the joys of the retreat

by **JOE MEMBER**

I applied for the July Retreat to Loon Lake. I wasn't sure what was going to happen. I didn't know who was going or if I would even like them. Would I be expected to do all these outdoor things like volleyball or go on long hikes? Or would it be touchy-feely and I'd have to wear flowers and dance in a circle?

I wasn't sure I really even wanted to go, then I got a phone call from a Retreat Team member scheduling an interview. I met with him and was able to get my questions answered. I was now looking forward to this adventure, and I knew someone who would be there.

In a few weeks I had a list of what I needed to bring. Don't forget the rain gear! On a sunny morning I checked in to register, hesitantly looking around at new faces. Hot coffee, donuts and helpful volunteers greeted us. As we boarded the bus I felt pretty nervous but people were friendly.

Arriving at the rustic Main Lodge we were met by a large Welcome sign. After an orientation telling us the routine for the next few days and site safety, we were divided up into small groups which would be meeting daily. The rest of the three days were spent, doing art projects, board games, telling jokes and singing around the fire alongside the lake, and waiting for the bell to ring to call us in for another large, healthy meal.

There were men, women, gay, straight, young, older and from different towns around BC. The body work appointments went on all day. I had a great massage and tried acupuncture for the first time. I rode in a canoe piloted by an experienced retreater and let the sun shine on my face as I looked up at the mountains in the still quiet.

I soon began looking forward to the casual, but personal, small group meetings, which made me feel a part of a community. It was a sad but noisy ride back to the city. I was tired and ready to be in my home, but I also was going to miss the good food, new friends and the laughter. The volunteers worked hard and took good care of us. Sign me up for another one!

Fall update: Last week I stopped into the **Lounge** to get a haircut and pick up my **CHF** cheque. I bumped into someone I met at the **Retreat**. She was on shift as a **Peer Counsellor**. She told me about **Theatre Positive's** performances at the Fringe Festival. We made a date. On the way out I dropped into **Polli & Esther's** and found a couple of great shirts. Things are looking up in my life.

Polli & Esther's FLEA MARKET

St. John's United Church Gym
Saturday November 20
10 AM – 3 PM

Tables for rent to groups and individuals @ $10 each

Please bring your donations to the Church preferably before 10 AM

All donations to Polli & Esther's must be clean and in good repair.

Profits made will go back into Polli & Esther's, a Support Services program.

Sorry we cannot pick up!

HUMAN RESOURCES DEPARTMENT

Growth through partnerships

As Society members' needs diversify, the **Human Resources Department (HR)** continually adapts it's programs and systems. Operating on a limited budget, HR is able to advance these changes through developing partnerships with other agencies.

Over the past two years, research into work and training issues for persons with HIV was made possible through a grant from the **United Way**, and involved collaboratve work with **ASIA, Healing Our Spirit** and **YouthCO.** The findings of this research identified a need for vocational rehabilitation counselling. HR was able to meet this need through linkages with **Alliance Health Care Group**, offering career exploration and **IAM Cares (International Association of Machinists and Aero Spaceworkers)** offering job placement. Two counsellors are now available to our members, 4 days per week, at no cost to the Society. In its first month of operation, more than 25 members used this new service.

With other Society departments expanding their services, requests for volunteers with specialized skills are rapidly increasing. Responding to this need, HR is partnering with educational institutes, such as the **University of British Columbia**, and obtaining volunteers by offering practicum placements. Working with **Human Resources Development Canada**, HR will receive personnel funding for a 20-week grant to initiate volunteer recruitment strategies in the corporate and educational sectors. This initiative will surely create more partnerships that will enhance our support for persons living with HIV disease.

WORLD AIDS DAY

DECEMBER 1

33 million HIV+ people

live on our planet. More people than the entire population of Canada.

The scope of the global AIDS epidemic boggles the mind. Every day it is estimated that 16,000 more people become newly infected with HIV – **5.8 million people last year.** Tragically, by the time you read this article, over 15 million people will have died of AIDS since the epidemic emerged in 1986.

There's a saying: "no one said life would be fair." Well, AIDS certainly is not. Increasingly, AIDS is impacting developing countries disproportionately – the poor, men and youth especially. Last year, the Joint United Nations Program on HIV/AIDS (UNAIDS) reported that 95% of all new HIV infections occurred in developing countries, roughly 60% among men and 50% among 15 to 24 year olds. AIDS flourishes in regions that lack adequate medical care, preventive programs and basic sex education. Perhaps more so today than in the past, poverty is driving the spread of AIDS and is a key risk factor.

AIDS FACT

95% of all new HIV infections occurred in developing countries, roughly 60% among men and 50% among 15 to 24 year olds.

AIDS FACT

The 21 countries with the highest HIV prevalence in the world are all in Africa, and in at least 10 of them, the rate exceeds ten percent of the entire population.

Youth and HIV

World AIDS Day provides those of us living in industrialized countries with the opportunity to journey into unfamiliar regions, countries, and continents, where millions of people are HIV positive. With eleven people becoming infected every minute, and 54% of these infections occurring among young people under 25, it's not surprising that the theme of World AIDS Day 1999 is *Children and Young People: Listen, Learn and Live.*

Last year, 3 million children and young people were newly infected with HIV worldwide. Children and young people now form one-third of the 33.4 million people who are living with HIV disease and AIDS.

According to an UNAIDS Briefing Paper released this year, there are signs of hope for youth and children. New infections in many industrialized countries and some developing countries have declined through a successful "combination of media campaigns, sexual health education, the provision of condoms and the establishment of supportive policies." Australia, Thailand, Uganda, and Switzerland have all seen declining infections for people under 25 resulting from education, increased condom use, and "a trend among young people to begin their sexual life later."

AIDS & sub-Saharan Africa

The true horror of the AIDS epidemic is being felt in sub-Saharan Africa. Up until recently, the full scope of HIV disease has been vastly underestimated. Over 22 million people are living with HIV in this region of the world. The twenty-one countries with the highest HIV prevalence in the world are all in Africa, and in at least 10 of them, the rate exceeds ten percent of the entire population. This means that in these countries, one in ten people walking down the street is carrying HIV. The World Health Organization's director for Africa says the disease, which threatens to decimate the African population, should be declared a 'super disaster.'

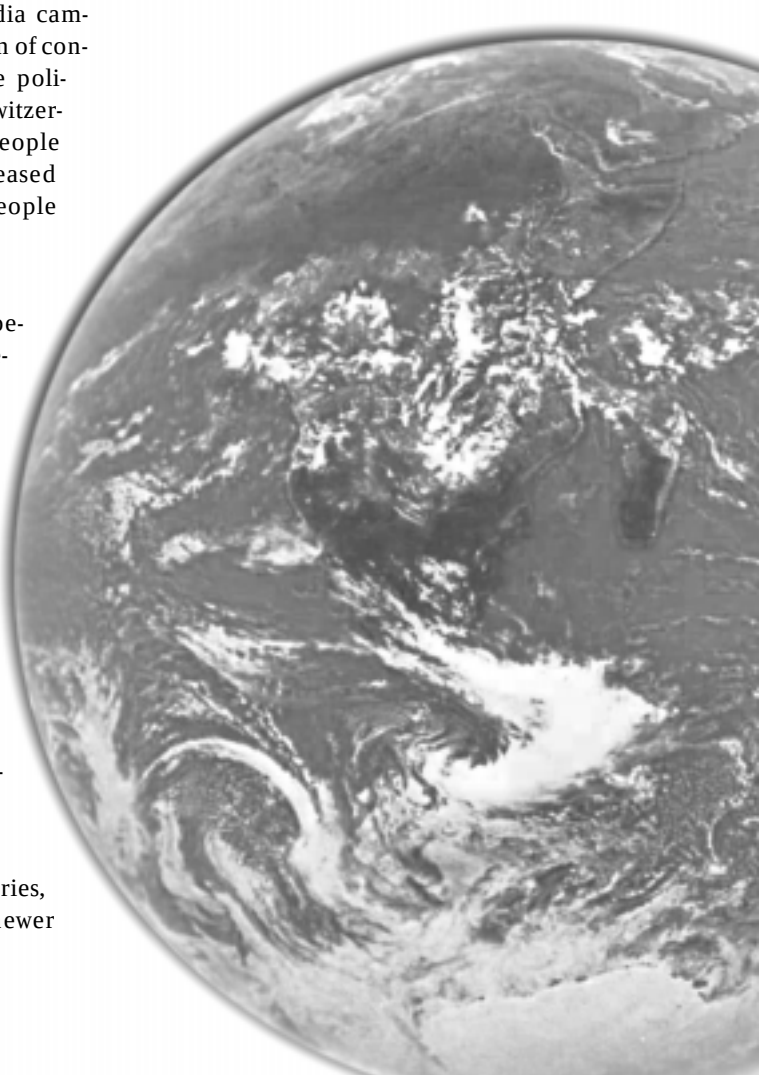
South Asia

Initially AIDS started later in the Asian countries, but it is rapidly taking hold today. AIDS is newer to Asia than Africa, but only a few of the countries have developed systems to monitor the spread of the disease. China's official estimates indicate that by the end of 1996, up to 200 000 people were living with HIV / AIDS. According to some estimates, this figure may have doubled by the end of 1997. Infection rates in India are under one percent of the total adult population. Although this is low compared to other countries, it is still ten times higher than neighboring China. India is the country with the largest number of HIV infected people in the world.

South East Asia and Pacific

Thailand is probably the best-documented epidemic in the world. The number of new infections is continuing to decline, especially among sex workers and their clients. Currently, 2.3% of the population is infected with HIV, with sex workers and clients accounting for the majority of infections.

There is limited information for other parts of South Asia. In Southeast Asia, the rates of HIV infections remain low. In Indonesia, Malaysia, Philip-



pines, and Singapore, infection rates are well under 1%.

The situation is most serious in Cambodia where 1 in 20 pregnant women, 1 in 16 soldiers and policemen, and 1 in 2 sex workers tested positive in sentinel HIV surveillance. Vietnam and Myanmar are also seeing the rapid spread of HIV. One in five of the world's total number of people living with HIV, live in Asia and the Pacific. By the end of the year 2000, that proportion is expected to rise to 1 in 4. Around 92,000 children now live with HIV in Asia.

North America, Canada and British Columbia

Across North America UNAIDS estimates that there are 890,000 people living with HIV disease and AIDS and report that 44,000 people were infected with HIV in 1998. With the advent of new AIDS drugs, in particular protease inhibitors, the death rate from AIDS has been drastically reduced, declining by over 60%.

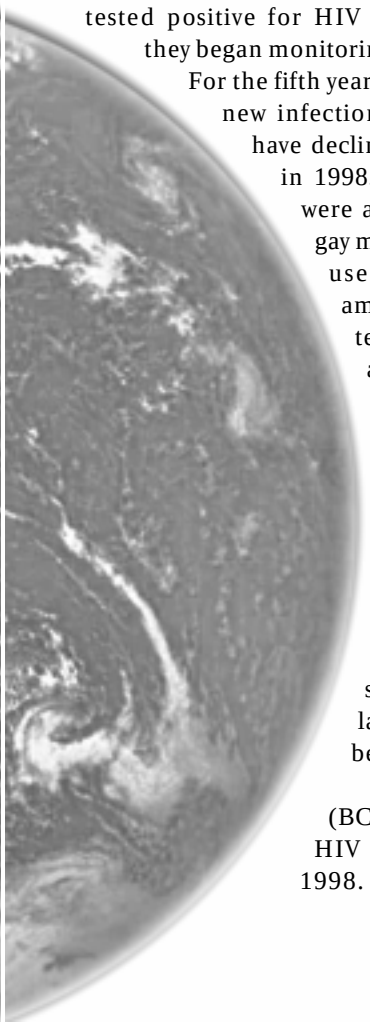
Last year, Health Canada reported that 43,000 people have tested positive for HIV since they began monitoring the epidemic in 1985. For the fifth year in a row, the number of new infections reported in Canada have declined marginally to 2,301 in 1998. Across Canada, 79% were attributed to men (35% gay men), 29% injection drug users (IDUs), and 21% among women. 60% HIV+ tests reported occurred among people between the ages of 30 to 49. New infections among 20 to 29 year olds represented 28% of all reported, and 1.5% were under 19. The fastest spread in new HIV infections are attributed to heterosexual sexual contact, fully 16% last year, up from 6.2% between 1985-1994.

In British Columbia (BC), there were 482 new HIV infections reported in 1998. Most of the national trends were reflected with slightly higher proportions of infections reported among IDUs (34.2%) and lower among women (19.9%) and gay men (24.3%). Across BC, new infections among heterosexuals increased to 21.5% of all tests reported, up from 7.9% in 1993.

Solutions are known, but political will and resources lacking

It has been clearly demonstrated that a combination of media coverage, sex education, condom provision with care and support work to slow the spread of HIV – all these efforts cost money. And, while the new infections reported have remained constant or declined in many countries, this is not the case in sub-Saharan Africa.

AIDS FLOURISHES IN REGIONS that lack adequate medical care, preventive programs and basic sex education. Perhaps more so today than in the past, poverty is driving the spread of AIDS and is a key risk factor.



"Effective measures to meet this emergency exist. However, the current allocation of resources to combat the epidemic is grossly inadequate", said Dr Piot, Executive Director of the Joint United Nations Program on HIV/AIDS (UNAIDS). "It has now been clearly established that when resources are adequate and are invested wisely, AIDS can be more effectively addressed in Africa. Countries must be the driving force behind effective responses, but they need the support of the international community to build and sustain national efforts. A quantum increase in funding for effective prevention and care programs is required."

In response to the urgency of the AIDS situation, African countries - together with UNAIDS, its Cosponsors, and other partners - have initiated an International Partnership against AIDS in Africa. The Africa Partnership aims to urgently mobilize governments, civil societies and the private sector worldwide to accelerate action to tackle AIDS.

AIDS FACT

Across BC, new infections among heterosexuals increased to 21.5% of all tests reported, up from 7.9% in 1993.

THANK YOU

AIDS WALK 99 THANKS YOU FOR HELPING US RAISE A RECORD $400,000

PREMIUM SPONSOR

GlaxoWellcome

IN PARTNERSHIP WITH

BioChem Pharma

PLATINUM SPONSORS

Abbott Laboratories, Ltd.
Hey Wagon Community Stage
Granville Island Public Market
ALDO
Canadian Airlines / American Airlines
Vancouver Television
Molson

GOLD SPONSORS

Bristol-Myers Squibb
Starbucks Coffee
Capers Community Markets
Pattisson Outdoor
Merck Frosst
Westender
Z95.3 FM
CKNW 98
Bad Boys
The Province
The Georgia Straight
The Boathouse Restaurant

SILVER SPONSORS

Agouron
Hoffman-LaRoche
DuPont Pharma
Canada Trust
Famous Players Inc.
BCTel Mobility
Denman Fitness
Pfizer Canada Inc.
Creekhouse Gallery
National Public Relations
Grey Advertising

BRONZE SPONSORS

VanCity Credit Union
IBM Canada Ltd.
Pharmacia Upjohn
Serono Canada
Durex Condoms
Lounge Hair Studio and Spa

Very Special Thanks to

MGM Television Canada
KeeperKards
Showmakers
Nettwerk Records
ROOTS Athletics
Arkade
Denis Simpson and Veena Sood
Bill And Stephen (The city's finest food managers!)
Little Communications
Lawrence at Butch
Canadian Springs
Jones Soda
The Lazy Gourmet
Ebony (our fab DJ)
The Bughouse Five
The Libettos
The Rainy City Gay Men's Chorus
The Vancouver Parks Board
Time Waits
The City of Vancouver
ClearNet
Thrifty Car Rental
All of our route entertainers
And our corporate team captains

We would also like to recognize the following individuals who put endless hours into the organizing of AIDS WALK 99: **Jeff, Jay, Glen, Joel, Mike, Stephanie, Scott, Pierre, Mavis, Joanne** and the organizing committee (you are the best!), and all 350 volunteers.

To our corporate teams and each and every walker and donor, a very special thank you.

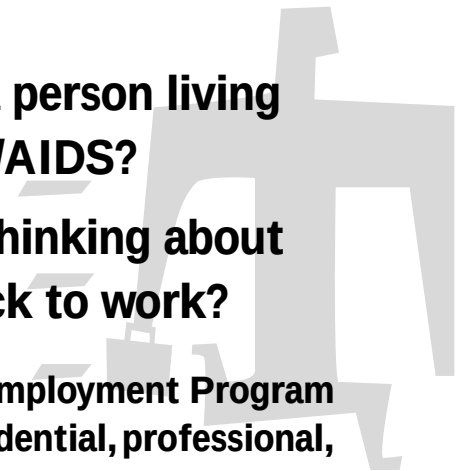
A collaborative program of BCPWA and IAM CARES

Life Employment Program

FOR MORE INFORMATION PLEASE CONTACT

Stephen MacDonald
IAM CARES / BCPWA
TEL:(604) 551-9205 or 893-2244

Funded by Human Resources Development Canada



Are you a person living with HIV/AIDS?

Are you thinking about going back to work?

The LIFE Employment Program offers confidential, professional, no-fee services to help you get a job

Alliance Health Care in conjunction with BCPWA is pleased to offer

GOING FORWARD TO WORK

VOCATIONAL EXPLORATION PROGRAM

Either on an individual or group basis, services provided include:

- Clarification of interests, skills, and values
- Career and labour market research
- Identification of training programs and potential funding sources
- Discussion of self employment and creative income opportunities
- Decision making and risk taking associated with a return to work
- Job search skills and strategies

The program is geared to assist individuals with HIV/AIDS who are considering entering or returning to the work force.

If you are interested, or would like more information, please contact: Eileen Cook at 727-3815, or Lisa Kallio at 730-6010.

volunteering at BCPWA...

Gain and share your skills for a valuable cause

IF YOU HAVE

- **administrative skills that include word-processing, or**
- **coordination and team building abilities, or**
- **research and writing skills, and**
- **the ability to work independently and in a group,**

we can find a match for you in our numerous departments and program

For further information and an application form contact: Volunteer Coordination at 893-2298 or e-mail: pwavol@parc.org or Human Resources at 1107 Seymour Street.

Visit our web-site at www.bcpwa.org for further information on volunteer positions

South American Harvest Stew

This satisfying stew contains the ingredients known as the "three sisters" – squash, corn and beans – equally revered by the Native Americans of North America. For all you meat eaters, feel free to add beef, turkey or chicken to the recipe.

1 tablespoon olive oil

1 large onion, chopped

1 medium red bell pepper, diced

4 heaping cups pre-baked, peeled and diced orange squash (sugar pumpkin, butternut, carnival, etc.)

3 cups cooked fresh corn kernels (from 3 to 4 ears)

1 28-ounce can diced tomatoes, with liquid

1 16-ounce can red or black beans, drained and rinsed

1 to 2 fresh hot chiles, seeded and minced, or 1 4-ounce can chopped mild green chiles

1 cup vegetable stock or water

2 teaspoons ground cumin

Salt to taste

1/4 cup chopped fresh cilantro

Hot cooked rice

Heat the oil in a soup pot or steep-sided stir-fry pan. Add the onion and sauté over medium heat until it is translucent. Add the red bell pepper and continue to sautÈ until the onion is golden.

Add all the remaining ingredients except the last three. Bring to a simmer, then simmer gently, covered, for 15 to 20 minutes.

Season to taste with salt, then stir in the cilantro. Serve at once in shallow bowls over hot cooked rice. *Serves: 8*

BCPWA moving forward in '99

continued from page 4

Results of a recent survey were reported at the Conference of the Canadian Association HIV/AIDS Research revealed that except for doctors, PWAs in this province rely most heavily on BCPWA for treatment information. So successful is the treatment information program that we are taking our *Treatment ABC's* on the road to more than thirty sites in BC in the coming months.

Many PWAs want to enter the workforce as a result of improvements in their health. In partnership with IAM Cares and alliance Health Care we are providing support to those making this transition.

These are just some new directions that enhance our ongoing programs such as: the complementary health fund, peer/support counselling, Polli and Ester's Closet, the Lounge, complimentary tickets, theatre positive, Neutron Lounge, Christmas celebrations, member retreats, individual advocacy on a wide range of issues, volunteer training and development, community-based research, community forums on treatments and a variety of oh-so-fabulous fundraising events.

BCPWA is the voice of people living with HIV/AIDS in British Columbia. We represent our community everywhere from hospital boards to government committees in working to effect systemic reforms to ensure our needs are met.

Development of partnerships with other community groups and agencies has been a vital component of our strategy to use limited resources most effectively and to enhance the quality and value of all that we do.

Throughout is proud history BCPWA has set an example for PWAs around the world through our hard work and numerous accomplishments. As we enter a new millenium I am confident together we will conquer AIDS.

Glen Hillson

TREATMENT INFORMATION PROGRAM MANDATE & DISCLAIMER

IIn accordance with our mandate to provide support activities and facilities for members for the purpose of self-help and self-care, the BCPWA Society operates a Treatment Information Program to make available to members up-to-date research and information on treatments, therapies, tests, clinical trials, and medical models associated with AIDS and HIV-related conditions. The intent of this project is to make available to members information they can access as they choose to become knowledgeable partners with their physicians and medical care team in making decisions to promote their health.

The Treatment Information Program endeavors to provide all research and information to members without judgement or prejudice. The project does not recommend, advocate, or endorse the use of any particular treatment or therapy provided as information. The Board, staff, and volunteers of the BCPWA Society do not accept the risk of, nor the responsibility for, damages, costs, or consequences of any kind which may arise or result from the use of information disseminated through this project. Persons using the information provided through this project do so by their own decisions and hold the Society's Board, staff, and volunteers harmless. Accepting information from this project is deemed to be accepting the terms of this disclaimer.

What's happening to herbs?

The Canadian Federal Government recently announced that it would establish the Office of Natural Health Products within the Health Protection Branch. Health Minister Alan Rock stated, "The new office will provide the public with assurance of safety while enhancing consumer access and choice." Health product manufacturers and retailers are not yet sure whether this is a positive move. Concerns were addressed at a recent forum, "The Future of Natural Health Products," organized by the Health Action Network Society in Vancouver.

Donna Herringer, President of the Canadian Health Food Association, said that she is pleased that Rock accepted "all 53 recommendations made by the Standing Committee on Health." The CHFA is supportive of the government's decision to "have natural health products recognized and regulated as an entity distinct from foods and drugs." She cautioned, however, that "there is still a lot of work to be done." The CFHA expects that the natural health products industry will have a strong voice in future regulations and policies through their position with the Transition Team and the Expert Advisory Committee.

Other speakers at the forum were less optimistic. Anthony Rees, a Herbalist from South Africa, pointed out that in his country some herbs and supplements became classified as 'new drugs' following questions about 'health claims' and 'safety'. As a result, 30% of the products once sold in health-food stores are now unavailable and the rest are either in limbo or only found at higher prices in pharmacies. Rees predicts that a similar scenario will unfold in Canada.

Suzanne Harris, an expert in international trade, suggested that the new regulations are a blueprint to regulate herbs and supplements as drugs under a 'third category' similar to the systems in Australia, South Africa, Norway, and the United States. Harris explained that all signatories of GATT and NAFTA have agreed to harmonize their standards to meet the CODEX guidelines of the World Trade Organization, which treat herbs and supplements as a separate category of drugs. She advised health activists to focus on passing legislation that will guarantee that herbs and supplements are designated as foods.

Some suggest allowing health claims for foods with disclaimers from the Health Protection Branch.

However, the Food and Drug Act states that foods with health claims must be treated as drugs. Harris suggests allowing health claims for foods with disclaimers from the Health Protection Branch, as is done with cigarettes. "Require the HPB to prove that a supplement or herbal product is harmful before it can be removed from the marketplace," she recommended. The Health Action Network Society can be reached at (604) 435-0512.

Reprinted with permission from Shared Vision Magazine: Chronicle News Clips by Lionel Wilson, May 1999.)

information treatment

Prayer and psychic healing can have benefits, study shows

Distant healing study suggests a need for further research

This study was reported in the May 1999 issue of the peer-reviewed journal called Alternative Therapies (Vol. 5 No. 3). They define "distant healing" as being prayer and 'psychic healing'. They report that these practices are widely used among people living with HIV/AIDS, but that formal research has been insufficient to indicate whether such efforts actually affect health.

This was a randomized, double-blind trial using 40 people living with advanced AIDS. These people were matched for age, CD4 count, and number of AIDS defining illnesses. They were randomly selected to either receive ten weeks of distant healing treatment, or be assigned to a group who received no distant healing treatment.

Distant healing treatment was performed by self-identified healers representing many different healing and spiritual traditions. Healers were located throughout the United States during the study, and study participants and the healers never met. Participants were assessed by psychometric testing and through blood analyses when they were first enrolled, and then followed for six months.

At six months, a blind medical-chart review found that the participants who received the distant healing treatment had significantly fewer new AIDS defining illnesses (0.1 vs. 0.6 per patient; p=.04), and they had less severe illnesses (severity score, 0.8 vs. 2.65; p=.03), and these people required fewer visits to the doctor (9.2 vs. 13.0; p=.01), fewer hospitalizations (0.15 vs. 0.6; p=.04), and fewer days of hospitalization (0.5 vs. 3.4; p=.04). Treated participants also showed significantly improved mood compared with people who didn't receive the treatment. No significant differences were found in CD4+ counts.

The researchers concluded that the data do support the possibility that distant healing in people living with AIDS can be beneficial, and they suggest that further research be done.

MASSAGE THERAPY

Study for the treatment of painful peripheral neuropathy in HIV+ individuals

This research was presented at the 1998 International AIDS Conference held in Geneva (abstract #42376), and was done by a group of researchers at the New York Hospital and Cornell Medical Centre in New York City.

They took a small group of seven HIV+ people (4 males, 3 females) who had very painful peripheral neuropathy in the feet who had either partial or no improvement in pain after drug therapy (i.e. narcotic analgesics, tricyclic antidepressants and/or serotonin reuptake inhibitors). These people were referred to occupational therapy (OT) for pain management and treatment. OT treatment consisted of eight sessions of massage therapy and instruction on a self-performed home massage program. No changes in medications were made during the duration of the project. The Brief Pain Inventory (BPI) was used to measure quality and intensity of pain (scale: 1-10 points) before starting OT treatment (massage therapy) and after eight treatment sessions.

Five of the patients reported improvement with a mean decrease in pain of 3.2 (range: 1 - 7). Both of the non-responders had diabetes, and none of the responders had diabetes. CD4 counts had no impact on whether pain improved or not.

Carnitine

Powerful amino acid maintains lean body mass and fights fatigue

CARNITINE IS AN AMINO ACID which is available *(i)* in the diet, mainly from red (muscle) meats, and *(ii)* by synthesis in the body from lysine and methionine with the assistance of vitamin C and other secondary compounds produced in the body. The endogenous formation of carnitine occurs most readily in liver, kidney and the brain as a result of the occurrence there of the required enzyme 4-butyrobetaine hydroxylase (Lohninger *et al*, 1987).

Tissue distribution and uptake are partly hormonally controlled (*COMMENT:* this might be defective in HIV disease), and most tissues have levels that are several times higher than that of blood serum; thus transport occurs against a large concentration gradient (Siliprandi & Ciman, 1986). Carnitine transport in the body depends partly on extracellular sodium concentrations. Storage of carnitine is primarily in muscle tissues. Estimated turnover time for carnitine is about 35 days. Carnitine is of particular importance to heart muscle since the heart gets about 80% of its energy from lipids (Lohninger *et al*, 1987) - see below. Excretion from the body is mainly in the urine (Ashbrook, 1987).

Due to endogenous formation, carnitine is not normally considered an essential amino acid under normal circumstances of health. However, even for healthy individuals, "whether tissues are able to synthesize carnitine in sufficient quantities in absence of an exogenous source is uncertain" (Hunt & Groff, 1990). In fact, L-carnitine has been called a *conditionally* essential nutrient (Rebouche, 1992), meaning an exogenous source may be necessary.

The amino acids lysine and either methionine or cysteine, are considered essential. Methionine and cysteine are sulphur-containing amino acids of which at least one is essential in the diet. Lysine is one of only two amino acids considered "totally indispensable". Both lysine and the sulphur containing amino acids are particularly subject to modification during food processing such that they may become no longer available for normal body metabolism. Furthermore, both cysteine and methionine have been reported to tend to be low in HIV disease (Singer *et al*, 1992).

Although methionine lowering could be secondary to cysteine deficiency since cysteine normally functions *partly* as a "methionine sparing" amino acid (Hunt & Groff, 1990), it is more likely that methionine would become deficient in any case in a disease, such as HIV, characterized by severe oxidant stress. Both cysteine and methionine are readily oxidized, reversibly under lower oxidation stress, but irreversibly under more severe oxidation. The irreversibly oxidized forms, cysteic acid and methionine sulphone, respectively, are not available for normal body metabolism.

Carnitine is found in the muscles of the body at high levels. This is particularly important for supply

BY **CHESTER MYERS**

of energy to the body muscles. The carnitine transports long-chain fatty acids into the mitochondria where they are oxidized (called fl-oxidation) to provide energy. Production of this energy also requires vitamins B2, B3, B12, and biotin. Carnitine also aids in removing short- and medium-chain fatty acids that accumulate in the mitochondria as the result of abnormal metabolism. L-carnitine also helps normalize the redox state of the brain, and facilitates liver urea synthesis (Rebouche, 1992).

The main symptoms of carnitine deficiency are high triglycerides and muscular fatigue - see more on this below. It is likely that the phenomenon known as futile cycling (of free fatty acids) which occurs with HIV disease (Grunfeld, 1992) is either caused, or at least exacerbated, by carnitine deficiency. Futile cycling is the cyclical reformation of fat from free fatty acids with subsequent breakdown back to free fatty acids, and so on - thus fats are recycled burning up protein in the process. In HIV disease, the result is unusually high usage of protein to provide energy and relatively high storage of fat so that patients lose body lean mass and become fatty (about 44% increase in fat oxidation, but 300% increase in fat storage! a concomitant 250% increase in glucose formation (Hellerstein, 1992) is likely primarily from protein sources, hence the protein cannibalization). Since the immune system requires protein stores for its energy, this is devastating in a disease where the immune system is already under heavy siege.

Amino acid supplementation with carnitine maintains body weight, body mass and corrects nutritional differences.

In the absence of HIV infection, there have been several types of carnitine deficiency states observed. Systemic carnitine deficiency (SCD) occurs when deficiency occurs in several types of body tissue, and this is a source of acidosis, and acute encephalopathy (Lohninger *et al*, 1987), whose onset is usually characterized by vomiting followed by stupor and coma. SCD also results in muscular fatigue, and lipid accumulation, *i.e.*, hypertriglyceridemia (Siliprandi & Ciman, 1986). Myopathic carnitine deficiency (MCD) occurs when deficiency is limited to muscle tissue, and muscular fatigue is a major symptom. One of the conditions of mitochondrial failure is observed in Reye's syndrome (Angelini *et al*, 1986). Heart disorders and respiratory distress syndrome (RDS) are two other manifestations of carnitine deficiency.

Carnitine supplementation has been routinely shown to help correct states of deficiency, although improvement has been noted to occur in 80% of SCD patients compared to 100% of MCD patients (Ashbrook, 1986). At supplementation levels of more than 4 grams per day, diarrhoea may occur. Otherwise, carnitine has an LD_{50} value about the same as for other amino acids, *i.e.*, it is considered non-toxic (Lohninger *et al*, 1987).

Exercise helps increase carnitine levels (Braverman & Pfeiffer, 1987; Angelini *et al*, 1986) with resulting increase in utilization of fatty acids by the muscles.

What does this mean for those living with HIV?

In HIV disease, it is likely that hypertriglyceridemia occurs primarily, perhaps exclusively, from carnitine deficiency. Futile cycling and low cholesterol are similarly likely results. Contribution to fatigue and wasting is also highly likely, although there are other obvious sources for these. Those who require kidney dialysis are at increased risk since low carnitine results even in the absence of HIV (Lohninger *et al*, 1987).

Fat in the diet must supply essential fatty acids, required in the synthesis of a number of important metabolites such as arachidonic acid - more on this below. These essential fatty acids are long-

In Memoriam

It is with regret that we announce the passing of Chester Myers, PhD (November 24, 1945 – August 16, 1999). Chester died unexpectedly of non-Hodgkins lymphoma in Toronto.

Many BCPWA members and others in the HIV community have known Chester for many years. He has conducted many workshops in Vancouver on nutrition, supplementation, and other key issues around HIV management. His knowledge, enthusiasm, energy and character were an inspiration to all who knew him. Chester has also written numerous publications, many of which have been appearing regularly in newsletters such as "with Complements", as well as other more substantial documents which are all available in the Parc Library.

Chester's education and background, combined with his commitment to understanding the biochemistry of HIV disease has led a much greater appreciation of the interactions between food, nutrients, the immune system, and pharmaceutical drugs. Chester's death has come as a shock to us all, and although his presence is sorely missed, he has left us an enormous legacy.

chain and some sources of them are essential. Such sources include corn, peanut, regular sunflower and safflower oils. The second requirement from fat is as a source of energy. Fats exist in a more reduced state than carbohydrates and therefore represent a highly concentrated form of energy (more energy is produced during oxidation to CO_2 and H_2O) from the body (if the body is able to extract it) and saturated fats contain more energy per gram than do the unsaturated fats.

In addition to contributing to wasting, lack of energy and hypertriglyceridemia, errors in fat metabolism may also upset the body's regulatory system. Fat derived hormone-like substances include the prostaglandins, thromboxanes and leucotrienes, including the eicosanoids. Prostaglandins and thromboxanes often exhibit antagonistic effects, *e.g.*, in vasodilation by PGE_2 and vasoconstriction by PGF_2 – there seems to be no current research into whether these are involved in KS development. Other functions of these 'hormones' are regulation of blood pressure, diuresis, blood platelet aggregation, modulation of immune and nervous system effects, helping regulate gastric secretions, stimulation of smooth muscle contraction, *etc.* They affect only the cells in which they are synthesized. More specifically, leukotrienes contract respiratory, vascular, intestinal smooth muscle, modulate control of mucous *etc.* It is also significant that the formation of the leucotrienes involves glutathione in a cascading sequence of syntheses that produces a series of leucotrienes. Another significant feature may be that aspirin blocks the cyclooxygenase thus inhibiting prostaglandins and thromboxanes.

It is quite likely that those who supplement with NAC have less severe carnitine deficiency since cysteine levels are more likely to be maintained at an adequate level. If these same people also maintain red meat in their diet, this also ensures at least an exogenous source. For now we don't know how effective manoeuvres to replenish diminished carnitine supplies will be. There is still a possibility that the body's *use* of carnitine is impaired. Supplementation would seem a good idea in any case. Since there may be still a tendency for high cannibalization of protein as a source of energy, diets should not be abnormally high in fat, but instead should ensure *adequate* protein and carbohydrate contents, perhaps with an emphasis on *elevated* protein and starch contents. For those not taking NAC nor supplemental carnitine, it would seem best to keep dietary fat somewhat low, while maintaining intake of essential fatty acids. If serum triglycerides are normal, this is a good sign that "futile cycling" is not present.

An additional advantage will be achieved if part of the dietary fat is fat composed of medium-chain length fatty acids, *i.e.*, medium-chain glycerides of which the most common is the product called medium chain triglycerides (MCT). Use of these by the body is possible without the presence of carnitine. Coconut oil / fat is the source of the commercial MCT product. An alternative to using the purified MCT product is to use coconut fat directly. Also, a nectar of coconut fat and pineapple is available and this is useful as a fat source in blender drinks. An added advantage is that coconut fat is not immunosuppressive, in contrast to polyunsaturated fats. A rule of thumb may be to make about 50% of the fat intake from the medium-chain length fatty acid variety.

Reprinted from Chester Myers' Nutrition Series, February 1998

references

Angelini, C., Vergani, L., Costa, L., Martinuzzi, A., Dunner, E., Marescotti, C., Nosadini, R., "Use of Carnitine in Exercise Physiology", Adv. Clin. Enzymol. *4*(1986)103-110.

Ashbrook, D. W., "Carnitine Supplementation in Human Carnitine Deficiency", pp 120-134 in *Clinical Aspects of Human Carnitine Deficiency*, ed. P. R. Borum, Pergamon Press, 1986.

Braverman, E. R., Pfeiffer, C. C., *The Healing Nutrients Within*, Keats Publishing, Inc., 1987.

Grunfeld, C., "Metabolic Disturbances, Anorexia, and Wasting in HIV / AIDS", Proc. 1992 Internat. Symp. on Nutrition and HIV / AIDS, including the Nutrition Algorithm and Nutrition Initiative of the Physicians Association for AIDS Care, Nutrition and HIV / AIDS *1*(1992)9-15.

Hellerstein, M. K., "Pathophysiology of Lean Body Wasting and Nutrient Unresponsiveness in HIV / AIDS: Therapeutic Implications", Proc. 1992 Internat. Symp. on Nutrition and HIV / AIDS, including the Nutrition Algorithm and Nutrition Initiative of the Physicians Association for AIDS Care, Nutrition and HIV / AIDS *1*(1992)17-25.

Hunt, S. M., Groff, J. L., *Advanced Nutrition and Human Metabolism*, West Publishing Co., 1990.

Lohninger, A., Kaiser, E., Legenstein, E., Staniek, H., "Carnitine, Metabolism and Function", pp 1-25 in *Carnitine -It s Role in Lung and Heart Disorders*, ed. E. Kaiser, A. Lohninger, Karger, 1987.

Rebouche, C. J., "Carnitine Function and Requirements during the Life Cycle", FASEB J. *6*(1992)3379-3386.

Siliprandi, N., Ciman, M., "Carnitine: Transport and Function", Adv. Clin. Enzymol. *4*(1986)93-102.

Singer, P., Katz, D. P., Dillon, L., Kirvel‰, O., Lazarus, T., Askanazi, J., "Nutritional Aspects of the Acquired Immunodeficiency Syndrome", Amer. J. Gastroent. 87(1992)265-273.

Glutamania!

As glutamine increases in popularity, its benefits are becoming recognized

by **MAIA SZALAVITZ**

It slices, it dices, it's a floor wax, it's a whipped topping – the literature on glutamine, the body's most abundant amino acid can put one in mind of those late night infommercials touting miracle products. Glutamine has been reported to stop diarrhea and wasting, build lean body mass and improve muscle definition, promote immune cell growth and even possibly slow progression of HIV disease.

Glutamine is known as a crucial chemical for muscles. Glutamine is also used by immune cells and enterocytes (intestinal cells) for energy, it's important to the liver, the kidney and the brain.

But unfortunately, just as in those infommercials, there is very little solid data to prove that this nutritional supplement can actually help people with HIV live longer and better lives. There are some tantalizing clues however, and since it has very few reported side effects and very little potential toxicity, many people have decided to try it, usually in combination with antioxidant supplements like beta-carotene, NAC (n-acetyl cysteine), thioctic acid (alpha-lipoic acid), selenium and Vitamins C and E.

Here's the reasoning behind anti-oxidant use. In HIV, and other chronic illnesses, free radicals tend to build up in the bloodstream as a result of the way the immune system attacks its enemies. These nasty chemicals lack an outer electron. They damage the body by stealing electrons from healthy cells and lessen the body's ability to repair itself. One of the primary anti-oxidants needed to reduce this oxidative stress is a substance called glutathione

And you guessed it glutamine is one of its precursors, as is NAC.

Normally, nutrition provides enough anti-oxidants to combat this oxidative stress and neutralize the free radicals . But under continuous siege by HIV, the need for anti-oxidants begins to grow beyond what a regular diet can provide. Wasting is one result muscle tissue is rich in glutamine. The body starts breaking down muscle to fight the oxidative stress . Another result is a higher viral load, because HIV thrives in an environment rich in free radicals. Some nutritionists have begun to call glutamine a conditionally essential nutrient.

A recent study of about 100 PWAs, mostly men with less than 200 T-cells, done by Drs. Leonore and Leonard Herzenberg at Stanford University, found that glutathione levels are directly linked to survival. 85% of those who started the study with high glutathione levels survived the three-year-long study while only 18% with low levels did. It isn t known whether low glutathione levels cause or quicken disease progression or if they are a symptom of some other process however supplementation to increase glutathione levels in cells is increasingly popular. Glutathione is also crucial for liver health.

Some recent studies have suggested that taking glutathione itself can raise the glutathione levels in immune cells, but according to Dr. Judy Shabert of the Harvard University School of Medicine, the extra expense of doing so is unwarranted. Glutathione is taken up by the intestines, but it's broken down by the liver, so it's really just a very expensive source of cysteine. Our research has found that glutamine really does make glutathione and it has the advantage of doing many other things.

A recent study in the Lancet, for example, reported that glutamine supplementation significantly decreased the incidence of pneumonia, and other life-threatening infections like bacteremia and septicemia, for patients with multiple traumas and who were being fed intravenously. In the study, only 17% of patients on glutamine got pneumonia, compared to 45% of the participants who were not on glutamine. 7% on glutamine contracted bacteremia, while 42% of the non-glutamine group did. Finally, 3% (one person!) of those in the glutamine group experienced sepsis, compared to 26% of the non-glutamine group.

The effect of glutamine on the gut is pretty well documented because supplementation has been found useful not only for people with HIV, but with other conditions that require intravenous feeding like severe burns and intestinal surgery.

A pilot double-blind study of glutamine for intestinal problems in PWAs did not produce statistically significant results, quite possibly because the highest dose used was only 8 grams and most researchers now recommend doses higher than 20 grams for acute problems. However, it did show a trend towards improvement in those on higher doses. Studies of people with other conditions have found that glutamine supplementation speeds recovery and can even restore firm, healthy stools to people who have only inches (of a former 21 feet!) of intestine remaining.

Most people think the intestine is just an organ needed for the elimination of waste, but in fact, it is a crucial part of the immune system. Like people with

HIV, cancer patients on chemotherapy often suffer severe diarrhea. Charles Smigelski, RD, a nutritionist and researcher at Harvard University, reports seeing a cancer chemo patient who had disabling diarrhea for six months. Within a week on glutamine, his bowel movements were normal.

Smigelski is high on glutamine and other anti-oxidant supplements for people with HIV. He has about 100 HIV patients in his practice that are supplementing with glutamine and says, Most people report that they feel better on every level. It improves their energy, it reduces diarrhea, and it's hugely useful in wasting and dealing with oxidative stress. A ton of people swear by it.

Smigelski believes that such supplementation may be able to prevent or reduce lipodystrophy (Crix belly), thought to be a side effect of protease inhibitors. His patients find it useful for diarrhea caused by protease inhibitors as well. A very common experience is that someone will have protease related diarrhea. Immodium will stop the explosive diarrhea that often comes before people can get to the bathroom, but it won't firm the stools or reduce frequency. Glutamine, which I use in combination with probiotics (natural gut bacteria like acidophilus, lactobacillus, etc.), firms the stools. It really improves quality of life.

Body builders also tout glutamine because it is anabolic (builds muscles). A poster presented by Dr. Shabert at this year's International Conference on AIDS in Geneva reports that patients with wasting given 40 grams a day of glutamine (along with NAC, vitamins C and E, selenium and beta-carotene) gained an average of 1.7 kilograms (3.75 lbs) in lean body mass in 12 weeks. Patients in the control group were given glycine (another amino acid protein) and a multivitamin and they did not gain similarly.

Shabert notes that patients in a recent study using human growth hormone (which can have many unwanted side effects) put on a similar amount of weight in the same time period. But when they were followed up after stopping treatment, they lost the weight. Glutamine supplementation cost $250 while human growth hormone cost about $9,500. According to Shabert, growth hormone may force the body to make muscle at the expense of other vital organs. She says that the death rate of people using growth hormone was slightly (not significantly) higher than for the controls.

In support of Smigelski's views on glutamine and lipodystrophy, none of Shabert's subjects on glutamine developed the problem even though almost all were on protease inhibitors. However, it was a small study with only 21 subjects and its end point was never intended to find lipodystrophy.

Glutamine has been reported to
stop diarrhea and wasting, build lean body mass and improve muscle definition.

Dr. Mary Romeyn, a physician with a large HIV practice in San Francisco and author of the 1998 book, Nutrition and HIV , says that low glutamine levels may be responsible for bad reactions to Bactrim so, those who need Bactrim might want to consider supplementation with glutamine.

Toxicity

Few physicians or nutritionists report any toxicities or side effects from glutamine even at high doses. Says Smigelski, It may heighten the effects of caffeine which, for many, might be a plus. People with liver disease need to count their glutamine dose as part of their protein allotment, and some believe that it can help liver health. However, people with end stage liver or renal disease may have trouble. According to Dr. Charles Noyer, who published a study of glutamine for intestinal problems in PWAs, people might have changes in mental status , including lethargy and sometimes even mania. In his study, no one suffered these effects, however. Dr. Shabert reports that a study of glutamine in people awaiting liver transplant found that it caused encephalopathy (brain dysfunction), but she hasn't had any problems using it so far.

Dosages

Smigelski recommends the following dosages, to be adjusted according to individual needs and responses. For diarrhea caused by protease inhibitors, 10 grams a day. To treat symptoms of infectious diarrhea, use 30 grams a day for one week. As a treatment for the symptoms of diarrhea caused by MAC or cryptosporidiosis, use 40 grams a day for a week. Maintenance dosages should be adjusted according to individual needs. Shabert's study found 40 grams a day helped people with wasting add lean body mass. All experts agree that Glutamine works best in combination with other anti-oxidants. Smigelski believes that it's never too early to start supplementation. For people with HIV he recommends 5-10 grams a day of glutamine, 1-2 grams NAC, along with Vitamins C, E and selenium (we might add beta-carotene, garlic and thioctic acid).

Most nutritionists prefer the powdered form of glutamine. It should be dissolved in water or juice and consumed quickly before it breaks down. Capsules are available, but it's believed that the powder is better absorbed and the number of capsules needed to reach your dose might actually promote diarrhea or gas because of the gelatin coating. Glutamine should be taken immediately before or after meals. Doses should be spread out to three or more times a day.

continued on next page

Glutamine

continued from previous page

What people on glutamine are saying

John, a client of the PWA Health Group, believes he's been HIV-infected since 1978 he had persistent generalized lymphadenopathy (lymph node enlargement) before AIDS was discovered. I've been through all the drugs, he says. I have multi-drug resistant HIV.

John takes the full range of anti-oxidant supplements including alpha lipoic acid, NAC, vitamin C and 8-10 grams a day of glutamine. He started on the regime because, I thought that one factor that was not being considered in HIV was the host. He laughs, I'm the hostess with the mostess, but he didn't want to provide a party atmosphere for his virus. John says that glutamine didn't help when he had diarrhea related to Viracept, but other than that, he hasn t had a problem with diarrhea. I know other people who take it, (glutamine) who believe they have seen an effect. As for his current health, "I'm OK. I can't see cause and effect, but I have no other real options." His T-Cell count is 370 and he does report serious fatigue, but no side effects related to glutamine.

Mark, also a client of the PWA Health Group, had an unwanted change in his numbers just after starting glutamine, but has no way of knowing whether it was related to the supplement. For a year, I watched my numbers fluctuate, he said. He started an anti-oxidant cocktail and, My numbers got worse. My lowest T-Cell count went down to 209. I stopped everything. I got it in my head that the glutamine was the problem because I thought it was the most important of the anti-oxidants.

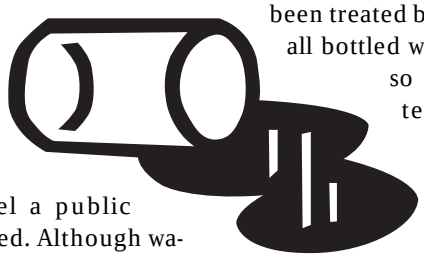
Mark, a long term survivor , believes he became infected in the 70's, although unlike John, he has never met the definition for AIDS. Now, he says, I'm healthy as a horse. He was taking all the anti-oxidants but glutamine and recently added it back into his regimen. His numbers are still fluctuating.

WATER SAFETY

How safe is our water?

by **DIANA PEABODY**

Normally the water supply in Vancouver and other towns in BC are very safe to drink. Although giardia and cryptosporidium, microbes (germs) that can cause diarrhea, have been found in municipal water supplies, they do not pose a threat to people with good immune function. Chlorinating the water kills giardia and cryptosporidium is not found at high enough levels to infect most individuals. If the cryptosporidium levels increase to a dangerous level a public health warning is issued. Although water supplies are usually extremely safe, people with abnormal immune function may be at increased risk, and may need to take special precautions.



Who is at risk?

People who have weakened immune systems must use extra caution when using tap water or well water. Anyone who has had a CD4 of less than 200 should practice the following guidelines.

How can I make water safe?

Choose one of the following options:

- Boil the water

Tap water should be boiled for 1 minute to kill cryptosporidium. Boil water once a day and keep in the refrigerator.

- Filter the water

Filters must be 1 micron in size to filter out cryptosporidium. Most commercial filters (e.g. Brita) are not small enough. Make sure the filter you are using is the right size.

- Use bottled water

Use distilled water or water that has been treated by reverse osmosis. Not all bottled water has been treated so choose carefully. Water coolers and other containers for bottled water can be a major site of microbial (germs) growth. Bacteria and moulds grow in these containers; therefore these water containers must be thoroughly cleaned inside with a vinegar solution at least once a month. Check with the supplier for instructions on how to clean your system.

When should I use purified water?

Purified water should be used for drinking, making juice and ice cubes, and brushing teeth. You do not need to use it for cooking, or washing foods, dishes and hands.

For more information ask your doctor or dietitian.

Studying gender difference in viral load

Two new studies suggest that the progression of HIV disease in women is developing earlier than men.

In current medical practice, HIV levels and CD4+ cell counts are measured, interpreted and used to help guide anti-HIV therapy without regard to gender. Two recently reported studies give pause to this standard of practice. They suggest that there may be differences in the way HIV viral levels (viral load) relate to the risk of HIV disease progression among men and women.

Essentially, the studies suggest that women have progression of HIV disease (at least as measured by CD4+ counts) at lower viral levels than men. The question of how much lower, or what a lower viral level means, remains a bit unclear.

The Federal Guidelines Panel—the decision-making body which creates the guidelines for the use of anti-HIV therapy—recently reviewed the new information on gender differences in viral load. It concluded that, for the time being, no changes should be made in the guidelines with regard to the use of anti-HIV therapies in women. They concluded that these new data are not markedly different enough to warrant changing strategies for treating HIV, nor should they be cause for alarm for women living with HIV.

Still, some people remain concerned about the implications of these studies. They add fuel to the already controversial debate of when is the most effective time to start or switch anti-HIV therapy. This article walks through these two studies and discusses some of the questions they have raised. No doubt you will be hearing more about this issue in the future.

The A.L.I.V.E. study

The first of the two main studies was presented at the 1998 World AIDS Conference in Geneva, Switzerland and was recently summarized in the scientific journal, *The Lancet*. It is based on a large group of HIV-positive men and women with a history of injection drug use. Blood samples from 527 participants which have been collected since the late 1980s were compared to 285 blood samples collected at least three years later. Researchers examined levels of HIV and CD4+ cell counts at both time points. In addition, they gathered information about the general health of the study participants and looked to see if there were unique differences according to gender and/or race.

Differences based on gender did come forward. Women in the study had HIV levels 38-65% lower than those observed in men with similar CD4+ counts. In general, women's HIV levels were half that of men in the study.

To try to better understand this difference more thoroughly, researchers examined viral load with CD4+ cell counts (0-200, 200-499 and greater than 500). Again, viral load was consistently lower in women than men across CD4+ cell count groupings.

This difference persisted after accounting for other factors that the researchers felt might influence the lower viral levels seen in women. Factors such as race, current and previous use of anti-HIV therapy and use of street drugs were analyzed. None of these factors could explain the gender difference in HIV viral levels.

So, what does this mean?

According to this study, it seems that – despite having a lower viral load – women appear to progress to symptoms of HIV disease at a similar rate as men. To verify if this was indeed the case, researchers looked at the association of viral load, CD4+ cell count and time to AIDS between men and women.

What they found was that women and men with similar CD4+ cell counts had a similar time to AIDS. The differences in viral levels among men and women suggest women appear to progress to AIDS with approximately half the viral load as men. Respectively, women with the same viral load as men had a higher risk of AIDS. What is consistent between men and women, however, is the predictive value of CD4+ cell counts. When CD4+ cell counts decline, people are at similar risk of HIV disease progression, regardless of gender.

Women in the study had HIV levels 30 to 65% lower than those observed in men with similar CD4+ counts. In general, women's HIV levels were half that of men in the study.

Now, these findings are far from confirmed nor does everyone agree on how

continued on next page

they should be interpreted. Nevertheless, they do raise important questions – like whether the relationship between HIV levels and progression to HIV disease is different among women and men. Several explanations for this difference have been proposed, including different biological dynamics of the virus in men and women, behavioral differences that might influence viral load and/or hormonal differences.

At this point, however, explanations seem premature. More information is needed to truly understand what the difference in viral load between men and women actually is, and even more information is needed to understand what this difference means.

The WIHS/MACS study

A study presented at the recent Conference on Retroviruses and Opportunistic Infections adds dimension to these questions. Like the ALIVE study, it compared viral levels and CD4+ cell counts between men and women.

Stored blood samples in 1984_85 from 1,511 HIV-positive men enrolled in the Multicenter AIDS Cohort Study (MACS) were compared with blood samples obtained in 1994_95 from 1,262 HIV-positive women enrolled in the Women's Interagency HIV Study (WIHS). When the original blood samples were collected, no one from either group was using anti-HIV therapies.

Like the ALIVE study, differences in viral load emerged. The degree of difference, however, was less dramatic. Additionally, differences were associated with specific CD4+ cell count levels. HIV levels were not different among men and women with CD4+ cell counts below 200. However, women whose CD4+ cell counts were between 200 and 500 had a 40% lower viral level compared to men with the same CD4+ cell count. For CD4+ cell counts above 500, viral levels were 24% lower for women than for men. Thus, according to the WIHS/MACS comparison, women's overall viral load was approximately 20% lower than men's. However, this study found significant differences between women in three different CD4+ cell groupings, which is contrary to the findings of the A.L.I.V.E study.

They suggest that the use of the viral load tests, particularly when used as a starting point for beginning anti-HIV therapy, may need to be adjusted for gender to account for this difference.

Now, how should one interpret these results?

The researchers conclude that HIV load is lower in women than men, but only at CD4+ cell counts above 200. They suggest that the use of the viral load tests, particularly when used as a starting point for beginning anti-HIV therapy, may need to be adjusted for gender to account for this difference. However, the Federal Treatment Guidelines discourage making initial treatment decisions solely on the basis of viral load numbers and always recommend that the CD4+ count also be a factor in the decision. In the case of women with CD4+ counts below 200, almost all sources recommend treatment regardless of viral load. Thus, the real impact of these findings, if they prove to be further confirmed, is how they affect women with CD4+ cell counts in the 200 to 500 range, who are making decisions about therapy based on viral load.

DIFFERENCES IN VIRAL LOAD ACCORDING TO CD4+ CELL COUNT (WIHS/MACS)

CD4+ Cell Count	% Lower Viral Level in Women
Less than 200	insignificant
200-500	40%
Above 500	24%

Practical questions for women

The federal guidelines for starting and switching therapy

According to the Federal Guidelines, any HIV-positive adult who is not experiencing symptoms and whose CD4+ cell count is less than 500 should be offered therapy. This recommendation is independent of HIV viral load. In other words, regardless of your viral load, if you have a CD4+ cell count of – let's say – 475, your doctor may suggest the start of anti-HIV therapy.

Not everyone with CD4+ cell counts below 500 chooses to initiate anti-HIV therapy, nor does every doctor recommend it. Nevertheless, there is sufficient data to say that every patient should be made aware of the option for treatment at this stage. The decision to start treatment, however, will still often take into account such other factors as the broad trends in CD4+ counts and viral load, as well as the patient's overall readiness and willingness to start therapy. There is no data, however, which suggest that patients will fare any better by waiting until later thresholds, such as 350 or 400 CD4+ cells. However, there are data that show that waiting until after CD4+ cell counts fall below 200 is probably harm-

ful because of the risk of opportunistic infections at this level.

In light of these new studies, however, interpreting the Federal Guidelines can get even more complicated. That's because HIV levels above 10,000 copies/ml are used as a supporting factor for initiating therapy according to CD4+ cell count. Yet it is also a factor for initiating therapy independent of CD4+ cell count (even this number, though depends on which brand of viral load test your doctor uses, since one brand tends to read twice as high as the other).

So, if you have a CD4+ cell count of 475 and HIV levels of 6,000 copies/ml, should you start therapy? An aggressive anti-HIV therapy approach would support considering therapy based on your CD4+ cell count alone. A more conservative approach, however, might include postponing the start of therapy until HIV levels rose near or above 10,000 copies/ml or until the CD4+ count declines further.

The rationale behind postponing therapy is that, in addition to being otherwise healthy, your CD4+ cell count has been stable for several tests and your viral load is less than the 10,000 copies/ml threshold. This situation could remain stable for years to come, or it might change rapidly over the next several months. Thus, you and your doctor might decide together to delay beginning therapy and continue careful observation and monitoring to see which pattern you are following.

Now here's the catch . . .

According to both of these two new studies, a woman whose CD4+ cell count is 475 and who has a viral load of 6,000 copies/ml is roughly at the same risk of disease progression as a man with a similar CD4+ cell count whose viral load is 10,000 copies/ml. Therefore, a conservative interpretation of the Federal Guidelines as it currently stands would support that a man could start anti-HIV therapy. A woman, on the other hand, according to the current recommendations, could be supported in a decision to wait and not start therapy, when in fact she is at same risk of disease progression as the man in this scenario.

In general, and to the Federal Guidelines committee, these differences appear to be relatively small and don't warrant changing the current recommendations based on gender. In either case, the decision about when to start therapy is a personal one. Choosing to briefly delay therapy is unlikely to make a large difference in long-term results. Based on existing data, both men and women at these stages are only in the early range at which treatment might be recommended. No one would say the decision is critical either way. In truth, at the viral load levels we're talking about, what's probably most important are trends and not absolute numbers. However, this information could be important information to you and your doctor as you evaluate the best strategy for your own situation.

As with the initiation of anti-HIV therapy, the decision to change therapies is approached with consideration of several factors. Among these factors are HIV viral levels measured on two separate occasions; CD4+ cell count; tolerance of and adherence to the current regimen; and overall general health.

The goal of anti-HIV therapy – to improve the length and quality of life for persons living with HIV – is thought best accomplished by suppressing viral load to below detectable levels for as long as possible while preserving immune function. Again, an aggressive anti-HIV therapy approach supports possibly changing anti-HIV therapy regimens whenever viral load is consistently in the detectable range of the test (on at least two consecutive tests). In practice, however, the degree of detectability or increase in viral level is usually considered along with a sober assessment of the number of treatment options a patient has left to work with. Persons with low viral levels (e.g. 100-5,000 copies/ml) may choose not to change therapy immediately and simply decide to monitor further changes in viral load, CD4+ cell counts and measures of general health. Some people in this situation will maintain low levels of virus, sometimes dipping below the level of detection and sometimes having sporadic detectable readings.

Again, the new studies give pause to this practice where women are concerned. Low viral load is currently defined at 100-5,000 copies/ml. Should a viral load of 3,000 copies/ml be viewed and responded to in the same way as 5,000 copies/ml in a woman with a CD4+ cell count between 200 and 500?

The decision to start, add or change therapy should never be decided solely on the basis of one laboratory measure.

How should this be interpreted in regard to switching therapy? At this point, the answer remains unclear. All existing data about how viral load affects the risk of HIV disease progression comes from natural history studies – studies of people who have not been treated for the disease. It is not at all clear that a certain viral load level has the same meaning after treatment as it did before treatment.

Certainly, these new studies point to the need for further study with regard to viral load in women and related risks of disease progression. These studies also remind us of two other points. CD4+ cell counts provide useful measures of the risk of disease progression, and their meaning is not influenced by gender. Moreover, the decision to start, add or change therapy should never be

continued on next page

decided solely on the basis of one laboratory measure (e.g. just viral load, just CD4+ cell counts, etc.). Treatment decisions should factor in trends in viral load; trends in CD4+ cell counts; the number of available future options; side effects; ease of adherence; and measures of overall general health.

While the Federal Guidelines Panel has decided to make no recommendations for a different standard of care for women with HIV, women and their doctors should be aware of these data which may support starting and switching therapy at lower HIV levels than what is recommended for men. A notation to this effect will be put in the revised Guidelines document. Nevertheless, viral load alone is not the only factor to consider when making treatment decisions. Moreover, the differences in viral load between men and women would only impact the treatment decision for women in a very narrow range of viral load and CD4+ cell levels.

Over the next few months, a clearer picture of women and viral load is expected to unfold. *WISE Words* will continue to report on this new information. In the meantime, keep in mind that more harm than good can be done by making too hasty of choices when starting, switching or stopping anti-HIV therapy. A carefully considered choice regarding therapy is the best one anyone can make. Remember, there is support for you in making that choice.

For your own free copy of the Federal Guidelines (entitled *Guidelines for the Use of Anti-HIV Therapy Antiretroviral Agents in HIV-Infected Adults and Adolescents*) call: 1-800-458-5231 or 1-800-448-0440. For more information of strategies for anti-HIV therapy, call Project Inform's toll-free National HIV/AIDS Treatment Hotline at 1-800-822-7422 and request Antiviral Strategies Discussion Paper.

Reprinted from Project Inform's "Wise Words, HIV treatment and Advocacy for Women," Issue #3, March 99.

What is a reverse transcriptase inhibitor?

by **DANIEL O'NEILL,** TIP

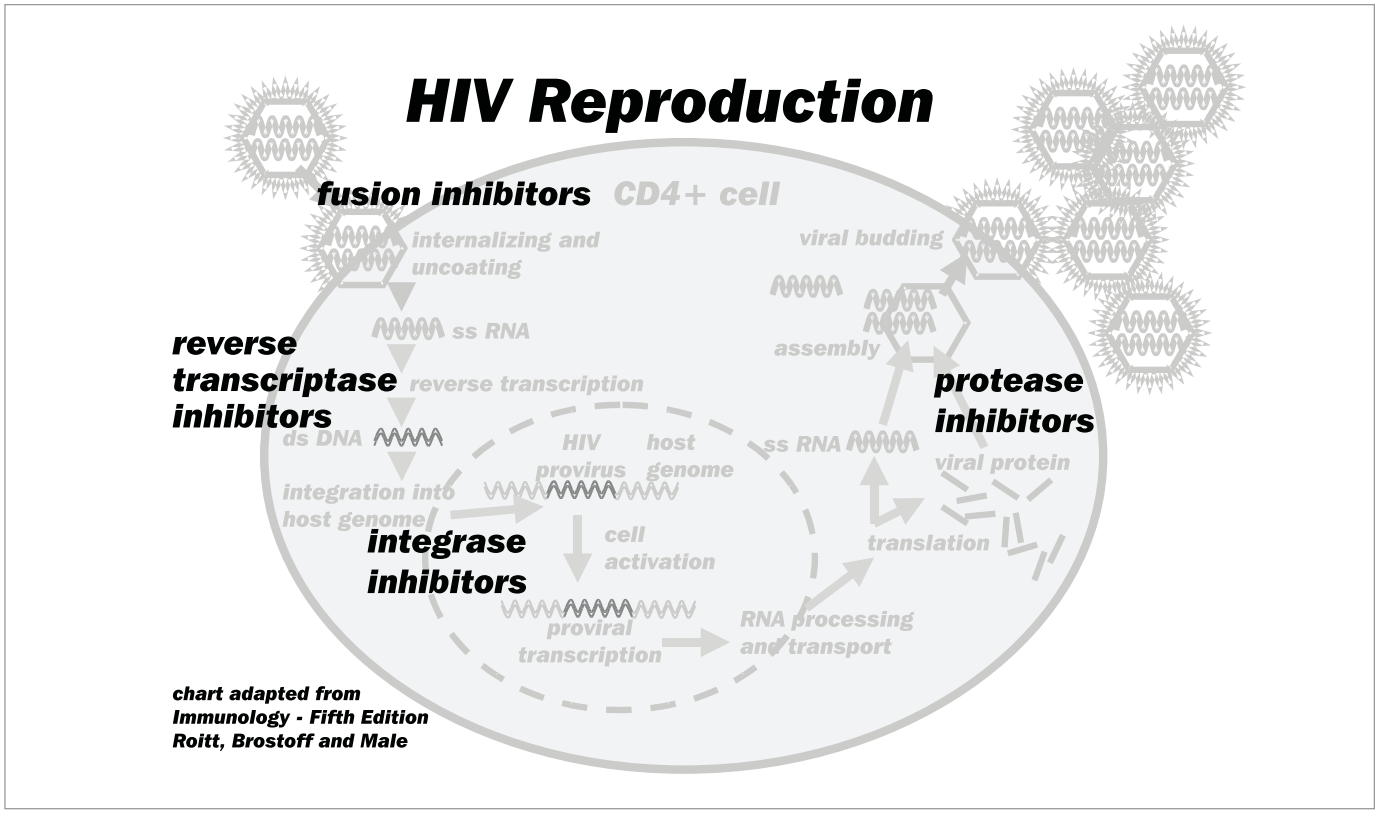
Antiretroviral drugs work by preventing viral replication at several different places in the HIV life cycle (figure 1). All antiretrovirals available in Canada work either by interfering with the reverse transcriptase or protease enzymes of HIV. This article is about the three types of reverse transcriptase inhibitors (RTIs): nucleoside analogues (nukes or NARTIs), nucleotide analogues and non-nucleoside reverse transcriptase inhibitors (NNRTIs).

The ideal drug would completely inhibit a step in the virus life cycle without having any effect on the host's biochemical systems – that is, it would be effective and not have any side effects. Because the ideal drug doesn't exist, doctors use combinations of drugs to enhance therapeutic efficacy by choosing drugs that act at different sites, or in different ways at the same sites, or at different components of the same process.

DNA is the genetic material of all living things except for RNA viruses. Some RNA viruses called retroviruses use their genes to create DNA. This backwards step is catalyzed by reverse transcriptase (RT), an enzyme unique to retroviruses such as HIV. All cellular organisms use DNA chains to transcribe mRNA which transcribes tRNA to code for amino acid sequences to create proteins. HIV hijacks this process in the CD4+ cell by integrating its own proviral DNA made by RT into the cell nucleus so the cell then makes proteins and more RNA for the virus to reproduce.

Because reverse transcription is unique to retroviruses such as HIV, the enzyme reverse transcriptase has been the target of research for effective anti-HIV medications. When RT makes DNA, it uses four chemical building blocks called triphosphorylated nucleotides. The four nucleotides are adenosine, cytidine, guanosine, and thymidine. The precursors of nucleotides are called nucleosides, which are phosphorylated by an enzyme called kinase specific to that nucleoside so nucleotides are phosphate esters of nucleosides. These nucleotides are then phosphorylated twice more by another specific kinase to form triphosphorylated nucleotides. The nucleoside and nucleotide analogue drugs also become triphosphorylated by the kinases. They work by pre-

continued on next page



continued from previous page
senting RT with building blocks similar to native triphosphate nucleotides, but instead of building a DNA chain they cause the chain to break or terminate. This stops the virus reproducing without interfering in theory with natural processes in the cell.

Different nucleoside drugs correspond to different natural nucleosides. When combining drugs, it makes sense to chose drugs that take the place of different nucleosides so they are not competing with each other for the same enzymes for phosphorylation. In theory, the use of three or four complementary drugs should be very effective in preventing viral replication. (See chart.)

The ideal drug would completely inhibit a step in the virus life cycle without having any effect on the host's biochemical systems – that is, it would be effective and not have any side effects.

The other major class of reverse transcriptase inhibitor is the non-nucleoside reverse transcriptase inhibitor (NNRTI). These drugs work by fitting into a crease in the RT enzyme itself, thus reducing its activity. All three currently available NNRTIs (nevirapine, delavirdine and efavirenz) work at the same area of RT but because the drugs are not identical the use of two or more NNRTIs in combination with other drugs might be more effective than a sole NNRTI with the same other drugs. A single mutation in the HIV gene for RT will render all available NNRTIs much less effective, so compliance may be particularly important with this group of drugs. The long plasma half-life of most NNRTIs may also mean that people who stop and start therapy are unwittingly exposing the virus to monotherapy after the other drugs have been cleared from the body. Resistance to NNRTIs occurs as quickly as a few weeks of monotherapy.

The RT inhibitors remain the backbone of most antiretroviral therapy. Because RT is unique to retroviruses, the RTIs have the potential to have fewer side effects than other classes. In order to have fewer side effects, many regimens now contain only RTIs and some contain only NARTIs. The long-term durability of the latter in comparison to the known data for NNRTI and PI containing regimens remains to be seen

DRUG	GENERIC NAME	BRAND NAME	ANALOGUE
3TC	lamivudine	Epivir / 3TC	cytidine
ABC	abacavir	Ziagen	guanosine
AZT	zidovudine	Retrovir	thymidine
ddC	zalcitabine	HIVID	cytidine
ddI	didanosine	Videx	adenosine
d4T	stavudine	Zerit	thymidine
F-ddA †	lodenosine		adenosine
FTC †	emtricitabine	Coviracil	cytidine
PMEA †*	adefovir dipivoxil	Preveon	adenosine
PMPA †*	tenofovir disoproxil	adenosine	

† not available in Canada
* nucleotide analogue

Staying alive: Reasons for using HIV antiretroviral therapy

By **DR. CHRIS TSOUKAS**

The questionnaire entitled "Tell Us Your Side of the Story" was circulated among 1,450 HIV-positive members of the BCPWA. At the time the results were compiled for presentation at the Canadian Association of HIV/AIDS Researchers conference in Victoria in May 1999, a total of 650 (45%) participants had responded. Preliminary analysis was conducted on 286 (44%) of the completed and entered surveys. Of this sample, 216 (76%) stated that they were currently taking antiretroviral therapy. 76% of *respondents are actually using antiretroviral therapy.* That is a favorable figure for any chronic condition, even for one which is life-threatening, and indicates that something must be working. Perhaps patients are getting the message that modern treatment prolongs lives and decreases disability. In my view, this is a very positive message.

So why did nearly one quarter of respondents choose not to take therapy? Of this group, 39.1% indicated that they were saving their treatment options for when they "really needed them." Of all the reasons listed, this one has the most rational basis. It is well known that several anti-HIV agents have undesirable side effects and in an era where more and more anti-HIV drugs are being developed each year, a person may feel that if they wait for the next one to come along, they may be able to escape these adverse effects. Related to this was the reason, "I have a high CD4 so I don't need therapy" to which 22.5% answered "yes."

However, waiting before initiating therapy has its own risks. We know that if a patient goes long enough without

treatment, the architecture of the lymph nodes begins to break down and irreversible changes to the liver and spleen can occur. Although there is a trend today to play the waiting game, evidence still favors early treatment with triple-drug combinations.

The next reason listed, "I am afraid of long-term organ damage," also has some basis in reality, but within the context of a disease that itself has ravaging effects on the body's organs, this may have little meaning in the long run. Certainly, there is a risk that the long-term use of antivirals may lead to damage, but this is still unknown. What we do know is that, for many people, the short-term potential for organ damage from FEV is far greater than the possibility of damage caused by the drugs.

Much of this fear of side effects is based in history. The older treatments for HIV, such as AZT, were known for their nasty adverse effects. Also, the protease inhibitors (PIs), despite their effectiveness, have been linked with the unsightly physical effects of lipidystrophy – uneven fat distribution, thinness in the extremities and facial changes. But now there are alternatives—many more than we had even a few years ago. The fact that respondents indicated "yes" to reasons such as: "I don't want to be guinea pig," "pills are poison," and "drugs make me sick," indicates that there is still a substantial number of people out there who have not learned that modern treatment is much improved in regards to side effects.

The response, "my doctor says I don't need them yet" can be interpreted in more than one way. A doctor may choose not to treat a patient if their viral load is undetectable and/or the CD4 cell count is high. There is also the situation where a patient may not be able or willing to follow complicated and difficult dosing regimens and the doctor chooses to wait for a therapy which may be simpler to follow. Lastly, there is the possibility of patient denial. There are many instances, especially in a life-threatening illness such as HIV/AIDS, where the patient may misinterpret what the doctor says. There have been instances where a doctor has provided a patient with treatment options, only to have them all refused. When the doctor accepts the patient's wishes, that is interpreted as "my doctor says I don't need them yet."

The main point of this article is that it is unwise to accept these reasons for not taking antiretroviral therapy at face value. Why are 76% of patients still on treatment? Because there is proof that the new triple-drug combinations keep them alive, keep them healthy, bring them back to work and decrease disability. A recent study by Hogg et al, published in the March 9th issue of the Canadian Medical Association Journal, showed that in a real-world setting (i.e. not within a clinical trial), that the likelihood of death was 2.37 to 3.21 times higher in patients taking dual-drug regimens (i.e. two nucleoside analogue reverse transcriptase inhibitors [NRTIs]) than in those taking three drugs (two NRTIs plus one PI or non-NRTI).

More than anything, the relatively high percentage of respondents who cited the above mentioned reasons for not taking drugs shows us that those of us in the HIV/AIDS health care community are not doing a sufficient job at educating people. We are not addressing the basic fears of these patients, which are: fear of the unknown, fear of the future and denial. Reasons such as "pills are poison," "I don't want to be a guinea pig" and "drugs make me sick," are also the responses of someone who hates all drugs, is suspicious of the medical system in general and may be in search of a more natural treatment. The spread of misinformation is rampant today and so there will always be these people.

However, for the majority of persons with HIV/AIDS, the evidence provided by science will speak for itself All we have to do is give them the whole truth.

Now there are alternatives – many more than we had even a few years ago.

Update on rescue therapy: Up to nine drugs being used

New studies indicate that multi-drug rescue therapy may be of some benefit for people experiencing drug failure

by **DANIEL O'NEILL,** TIP

For many people who have been taking antiretroviral therapy for a long time, the glossy advertisements for the latest medications may seem a little hollow. While the person starting therapy for the first time can expect viral load to plummet, often below the threshold of detectability, and CD4+ counts to begin their gradual rise towards normality, the person who has been taking medications for years may see viral load escalating and CD4+s dropping all the while enduring the side effects of the drugs.

Researchers and clinicians are now putting great effort into devising stratagems to use diagnostic tests and cocktails of up to nine drugs to get improved viralogical and clinical results for people whose drugs have failed. Older responses to viral rebound of switching one or two drugs in the cocktail or reverting to previous combinations ("recycling") have proven disappointing. Typically, the lower the CD4+ count and the higher the viral load at the time of switching regimens, the lower the chances of being able to achieve good viral suppression.

By using genotyping (genotypic analysis) of HIV with a person on therapy experiencing increasing viral load it is possible to select drugs more likely to be effective. Although the relationship between genotype and actual viral drug sensitivity in an individual has not been completely characterized, commercial databases such as those from Virco can give doctors a good idea of which drugs may work best. Even so, people whose viral genotype shows multiple drug resistance often can get good viral suppression with five or more drug combinations.

Dr. J. Montaner from the B. C. Centre for Excellence recently presented a paper on multi-drug rescue therapy at ICAAC in San Francisco. He and his colleagues reported on two cohorts of 98 and 65 people respectively who had experienced prior treatment failure who were offered rescue therapy of up to eight antiretrovirals and hydroxyurea. In both groups, about 30 - 40% of people achieved three subsequent consecutive plasma viral loads (pVL) below 400 copies per mL. Typically about 60% achieved at least one pVL below 400. This study suggests that many pretreated people experiencing drug failure can get some benefit from multi-drug rescue therapy. Many people in the study reported adverse drug effects.

Other classes of drug still in research may offer significant hope for people whose therapy is failing.

The role of drug holidays in restoring sensitivity remains unclear – by genotypic assay, viral populations quickly revert to wild type (sensitive to all HIV drugs) in the absence of drugs, but the assay cannot detect resistant subpopulations. If the virus has not become wild-type, resistance will return as soon as any selection pressure (such as a drug that had caused resistance) is applied.

Cross-resistance within non-nucleosides and protease inhibitors remains a challenge in clinical practice. Unapproved proteases such as Abbott's ABT 378r and Pharmacia Upjohn's tipranavir (PNU 140690) may offer hope for rescue for people for whom the proteases not longer work. Abbott's drug may work by virtue of very high levels of inhibition being achieved by the normal dose such that a ten-fold increase in resistance, which would render most proteases impotent, does not affect clinical efficacy. Tipranavir is touted as having a unique resistance profile so that the virus may be susceptible to tipranavir even when other proteases have failed. The value of the claims for these new drugs probably will not be clear until they have had widespread use, particularly with people with protease-resistant virus.

Other classes of drugs still in research may offer significant hope for people whose therapy is failing. The fusion inhibitors T-20 and T-1249 from Trimeris / Roche can prevent the virus from entering the host CD4+ cell. The two nucleotide analogues adefovir dipovoxil (PMEA) and tenofovir disoproxil (PMPA) interfere with DNA synthesis by reverse transcriptase but they enter the pathway at a different point from the nucleoside analogues. The opportunity to be able to hit the virus at more parts of its reproductive cycle may be the key to developing therapy with long-term durability. People who have received extensive pretreatment may especially be able to benefit from novel classes of drugs as cross-resistance between classes is not expected.

Methadone dose adjustment needed with nevirapine

Reports indicate AIDS drugs can cause withdrawal

Summary

Two groups of drugs – protease inhibitors and non-nucleoside reverse transcriptase inhibitors (NNRTIs) – form the backbone of HAART. Both are processed by the liver. Since the liver also processes many other drugs, drug interactions may occur. For example, doctors at Yale University have reported that patients using methadone and the non-nucleoside nevirapine can develop symptoms of methadone withdrawal unless their dose of methadone is increased. This problem occurs because nevirapine and methadone are processed by the same enzyme systems in the liver. And nevirapine appears to cause certain enzymes to process methadone more quickly, which can reduce the amount of methadone that would normally reach the blood.

Study details

Researchers reviewed medical records from a clinic treating 800 HIV+ people, half of whom were either former or active drug users. The researchers decided to publish data on 7 subjects (6 female, 1 male) who experienced nevirapine-related drug withdrawal. These subjects experienced at least two of the following effects:

- Documented symptoms of methadone withdrawal.
- Lower-than-normal levels of methadone in their blood while taking nevirapine.
- Relief from symptoms of withdrawal when their dose of methadone was increased.

Classic symptoms of methadone withdrawal can include

- Chills and sweats
- Nausea
- Diarrhea
- Abdominal pain
- Loss of appetite
- Shaking
- Anxiety
- Muscle and bone/joint pain

Only one of the seven subjects had never used antiviral therapy before starting nevirapine. Five of the seven used a maintenance dose of methadone ranging from 70 to 90 milligrams per day before taking nevirapine.

Results

All subjects developed symptoms of methadone withdrawal within four to eight days of starting nevirapine. In three cases, levels of methadone in the blood fell below the range necessary for treatment of heroin addiction.

The doctors of three of the patients expected an interaction between nevirapine and methadone so they "promptly" increased the dose of methadone to at least 150 mg per day to reduce symptoms of withdrawal. Due to the distress of going into methadone withdrawal while using nevirapine, four of the seven subjects stopped using nevirapine or, in some cases, all antiviral drugs.

The manufacturer of nevirapine has received at least 24 reports of nevirapine interacting with methadone and other opiates.

The study doctors suggest the following:

- Patients using methadone should receive counselling about the possibility of methadone withdrawal before they are prescribed nevirapine.
- Once patients have started to use nevirapine, they should be closely monitored for symptoms of methadone withdrawal.
- Should symptoms of methadone withdrawal occur, the dose of methadone should be "promptly increased" to avoid the discomfort of withdrawal and to "prevent discontinuation of antiretroviral therapy."
- Once patients stop using nevirapine, liver enzymes that process methadone will return to normal activity within two weeks. Thus, patients need to be monitored for signs of methadone overdose.

Hosein SR
Treatment Update 97, 1999 May, Volume 11 Issue 3

Reference

1. Altice FL, Friedland GH, and Coney EL. Nevirapine-induced opiate withdrawal among injection drug users with HIV infection receiving methadone. AIDS 1999;13(8):957-962.

Gay cancer – again

Unusually high rates of anal cancer found in gay men and gay men with HIV

by **DAN DAWSON**

The term "gay cancer" was used 18 years ago to describe HIV and AIDS, but now new data from the 6th Conference on Retroviruses and Opportunistic Infections shows that a new cancer appearing at unusually high rates is affecting gay men and gay HIV+ men in amazing proportions. Anal cancer in men who have sex with men is now being reported at alarmingly high rates, and the rate in gay men with HIV / AIDS is even higher.

Anal cancer is very similar to cervical cancer in women, and takes the form of tumors or lesions that appear in the anal canal. Studies now show that the rates of anal cancer are much higher in gay men and men who have sex with men (MSM) with HIV. Eight of every 100,000 women will get cervical cancer. Compare this to the numbers for men who have sex with men: 35 of every 100,000 will develop anal cancer. (The risk in the general population is 0.9 per 100,000.)

Estimates of anal cancer in people who are HIV+ are even more staggering. One study shows that HIV+ people are twice as likely to contract anal cancer as HIV-negative men, and that as an AIDS diagnosis approaches, the risk of anal cancer increases further. As the immune system weakens, lesions can develop and progress. HAART therapy may actually be the reason we are now seeing an increase in anal cancer. Cancer and tumors take several years to fully develop and become noticeable. Before the advent of HAART, people were dying before these lesions and tumors were noticed. Today, as new medicines are keeping people alive longer, new issues like this are now appearing.

And, unlike some other diseases, anal cancer does not seem to improve with better HAART therapy. In one study, 28 men with anal cancer, low CD4 counts, and high viral loads, were given HAART therapy and saw good results virologically. But, only 1 of the 28 experienced a regression of lesions or cancer. This indicates that HAART may have little impact on anal cancer.

Like cervical cancer, anal cancer is caused by a virus, the human papilloma virus (HPV). Initially, the cervix or anal canal develops abnormal, pre-malignant changes called intraepithelial (the superficial layer of the anal canal) neoplasms. These changes gradually worsen and become an invasive cancer. Screening tests are available to look for early changes, a pap smear for women and a similar pap smear of the anal canal for men. This can be preformed easily with a Dacron swab.

If abnormal changes are noted, further investigation and possible surgical excision by a laser may be necessary. Or, there are currently three methods of non-surgical treatment:

- **Imiquimod**. This is a topical agent that has limited effect because it so easily gets rubbed off.
- **Therapeutic vaccines.** These may work, but one needs to have a strong immune system for vaccines to work well.
- **Onxy-015**. This is a recombinant adenovirus that is about to enter clinical trial phase. It has the ability to kill cells infected with HPV.

Because of this data it is very important for all men who have sex with men to add anal screens to their health check-ups.

Reprinted from STEP Perspective, Volume 99, Number 1, Winter 1999, A Publication of the Seattle Treatment Education Project

Poppers: more evidence of suppressed immunity

by **JOHN S JAMES**

Four months ago *AIDS Treatment News* noted a toxicology study finding increased cancer in mice exposed to isobutyl nitrite, in concentrations approximating social use of the drug – apparently due to suppression of immune responses that would normally control the cancer, not direct stimulation of cancer cells[1] ("Poppers: Large Cancer Increase and Immune Suppression in Animal Tests," AIDS Treatment News #317, April 16, 1999). Now another study[2] has found increased bacterial growth, and further evidence of immune suppression. At a recent meeting in Amsterdam, researchers reported that isobutyl nitrite inhalation "results in increased bacterial growth in the lungs and livers of infected mice, suppresses the ability of mediastinal lymph nodes to respond to antigen-specific stimulation, and may reduce the CD4+ and CD8+ T cell populations in the mediastinal lymph nodes after pulmonary infection with *Listeria monocytogenes*."

This study was supported by the U.S. National Institutes of Health.

References

1. Soderberg LSF. Increased tumor growth in mice exposed to inhaled isobutyl nitrite. Toxicology Letters, 1999; volume 104, pages 35-41.

2. Schafer R, Barnett J, Soderberg L, and Damiani C. Pulmonary exposure to isobutyl nitrite reduces resistance to a respiratory infection. 10th International Congress of Mucosal Immunology, Amsterdam, June 27 to July 1, 1999.

Reprinted from AIDS Treatment News, Issue 325, August 20, 1999.

positively Happening

Our deadline for the next issue is November 17, 1999.
Although we strive to have correct, up-to-date listings, it is not always possible.

who to call

Pacific AIDS Resource Centre:
(604)-681-2122 or 1-800-994-2437

PARC Partners:
AIDS Vancouver *
BC Persons With AIDS Society
Positive Women's Network
Fax: 893-2251
* A/V Fax 893-2211

VANCOUVER & BC AIDS GROUPS

A LOVING SPOONFUL 682-6325

AIDS VANCOUVER* 681-2122

ASIAN SOCIETY FOR THE INTERVENTION OF AIDS 669-5567

BC CENTRE FOR EXCELLENCE IN HIV/AIDS* 604-806-8515

BC NATIVE AIDS AWARENESS PROGRAM* 660-2088

BCCPD AIDS AND DISABILITY ACTION PROGRAM* 875-0188

BC PERSONS WITH AIDS SOCIETY (BCPWA)* 681-2122

CANADIAN HEMOPHILIA SOCIETY - BC CHAPTER* 688-8186

DEYAS, NEEDLE EXCHANGE 685-6561

DR. PETER CENTRE 631-5801

FOOD FOR THOUGHT 899-3663.

FRIENDS FOR LIFE SOCIETY 682-5992

HEALING OUR SPIRIT BC FIRST NATIONS AIDS SOCIETY 604-879-8884

HIV-T SUPPORT GROUP 929-3862

HUMMINGBIRD KIDS SOCIETY 515-6086

LATIN AMERICAN HEALTH/AIDS/EDUCATION PROGRAM 255-7249

LOWER MAINLAND PURPOSE SOCIETY 526-2522

MCLAREN HOUSING SOCIETY 669-4090

PELVIC INFLAMMATORY DISEASE SOCIETY (PID): 684-5704

POSITIVE WOMEN'S NETWORK* 681-2122 ext. 200

VANCOUVER NATIVE HEALTH SOCIETY 254-9937

WINGS HOUSING SOCIETY: (VANCOUVER) 899-5405

YOUTHCO 688-1441

VANCOUVER CLINICS & COMPLEMENTARY THERAPIES

BUTE STREET CLINIC 660-7949.

DOWNTOWN SOUTH COMMUNITY HEALTH CENTRE 606-2640

GASTOWN MEDICAL CLINIC 669-9181

OAKTREE CLINIC FOR WOMEN 875-2212

PINE FREE CLINIC 736-2391

REIKI SUPPORT GROUP 990-9685

NATURAL CHINESE HERBS SOCIETY (S.T.A.U.N.C.H.) 872-3789

TRADITIONAL CHINESE ACUPUNCTURE: 681-2122 ext. 243

RURAL AIDS GROUPS

ABBOSFORD VALLEY AIDS NETWORK 853-2201 ext. 221

AIDS PRINCE RUPERT SOCIETY: (250) 627-8823

AIDS RESOURCE CENTRE - OKANAGAN & REGION (250) 542-2451 Pentiction: 800-616-2437 Princeton: 800-616-2437.

AIDS SOCIETY OF KAMLOOPS 1-800-661-7541

AIDS VANCOUVER ISLAND 250-384-2366

CAMPBELL RIVER SUPPORT GROUPS (250)-335-1171. Collect calls accepted.

CARIBOO AIDS INFORMATION AND SUPPORT SOCIETY (CAIS) 250-392-5730

CHILLIWACK CONNECTION - NEEDLE EXCHANGE PROGRAM 795-3757

CHILLIWACK HIV/AIDS SUPPORT GROUP 793-0730.

CHILLIWACK YOUTH AIDS MENTOR PROGRAM 795-3757

COMOX VALLEY SUPPORT GROUP (250) 338-7400

CRANBROOK AIDS SOCIETY 250-489-4995

DAWSON CREEK REGIONAL AIDS SOCIETY (250) 782-5709

KELOWNA - OUTREACH HEALTH SERVICES (205) 868-2230

LANGLEY HOSPICE SOCIETY 530-1115

NANAIMO AND AREA RESOURCE SERVICES FOR FAMILIES (250) 754-2773

NORTH ISLAND AIDS COALITION HARM REDUCTION PROGRAMS (250) 974-8494

NORTH ISLAND AIDS COALITION, CAMPBELL RIVER (NIAC) (250) 286-9757

NORTH ISLAND AIDS COALITION, COMOX VALLEY (NIAC) (250)830-6345

PORT ALBERNI SUPPORT TEAM ASSOCIATION (PASTA) ON HIV/AIDS (250) 723-2437

PRINCE GEORGE NATIVE FRIENDSHIP CENTRE, NEEDLE EXCHANGE (250) 564-3568

PRINCE GEORGE: AIDS PRINCE GEORGE (250) 562-1172

PRINCE GEORGE: NORTHERN INTERIOR HEALTH UNIT (250) 565-7311

QUESNEL SUPPORT GROUP (250) 992-4366

SURREY HIV/AIDS SUPPORT NETWORK 589-8678

THE HEART OF RICHMOND AIDS SOCIETY 277-5137

VERNON - YOUTH AND FAMILY SERVICES OUTREACH (250) 545-3572

VICTORIA AIDS RESPITE CARE SOCIETY (250) 388-6220

VICTORIA PERSONS WITH AIDS SOCIETY (250) 382-7927

WEST KOOTENAY/BOUNDARY AIDS NETWORK OUTREACH SOCIETY 1-800-421-

WHITE ROCK/SOUTH SURREY HIV/AIDS PROJECT 531-6226

WINGS HOUSING SOCIETY: (VANCOUVER ISLAND) (250) 382-7927 (Victoria) or 1-800-665-2437.

High flying on Section 56

Don't you get a bee in your bonnet when you think about the laws against using pot – especially when it's for medical purposes?

Well, now you can do something about it! Section 56 of the *Controlled Drugs and Substances Act* allows you and your doctor to apply to the Minister of Health to obtain marijuana legally for medical purposes. Now, before you get all gussied up and storm into your doctor's office – you need to know this is not as easy as it sounds.

While you will not need to get a lawyer (what a relief!) for this process, you will need a doctor who is willing to fill out a fairly lengthy application form. The application is fairly straightforward, for the most part. And, on an optimistic note, two individuals with AIDS were granted this exemption on June 9, 1999: Jim Wakeford and Jean-Charles Pariseau.

To obtain the "**Interim Guidance Document**," write, call or fax:
Director General
Therapeutic Products Directorate
Room 216, Health Protection Building
Tunney's Pasture
Address Locator 0702A
Ottawa, Ontario K1 A OL2

Phone: (613) 957-0369
Fax (613) 952-7756

Or access the Internet at either of these locations:

Press release "Interim Guidance Document released":
http://www.hc-sc.gc.ca/english/archives/releases/99_71e.htm

Interim Guidance Document:
http://www.hc-sc.gc.ca/hpb-dgps/therapeut/zfiles/english/cds/guides/interim_e.html

I POSITIVELY NEED IT!

NAME

ADDRESS

CITY PROVINCE/STATE

POSTAL CODE COUNTRY

PHONE FAX EMAIL

Yes! I want to receive Living+

I have enclosed the following for 6 issues of Living +

- ☐ $25 Canada (non-BCPWA members) ☐ $40 USA ☐ $45 International
- ☐ I want to donate the above subscription to a PWA who can't afford it.
- ☐ I am a PWA and can not afford the full subscription price.
- ☐ Enclosed is my donation of $_____ for Living +

living⊕

Cheques should be made out to BCPWA and mailed to:
1107 Seymour Street
Vancouver, BC
Canada V6B 5S8

WORLD AIDS DAY

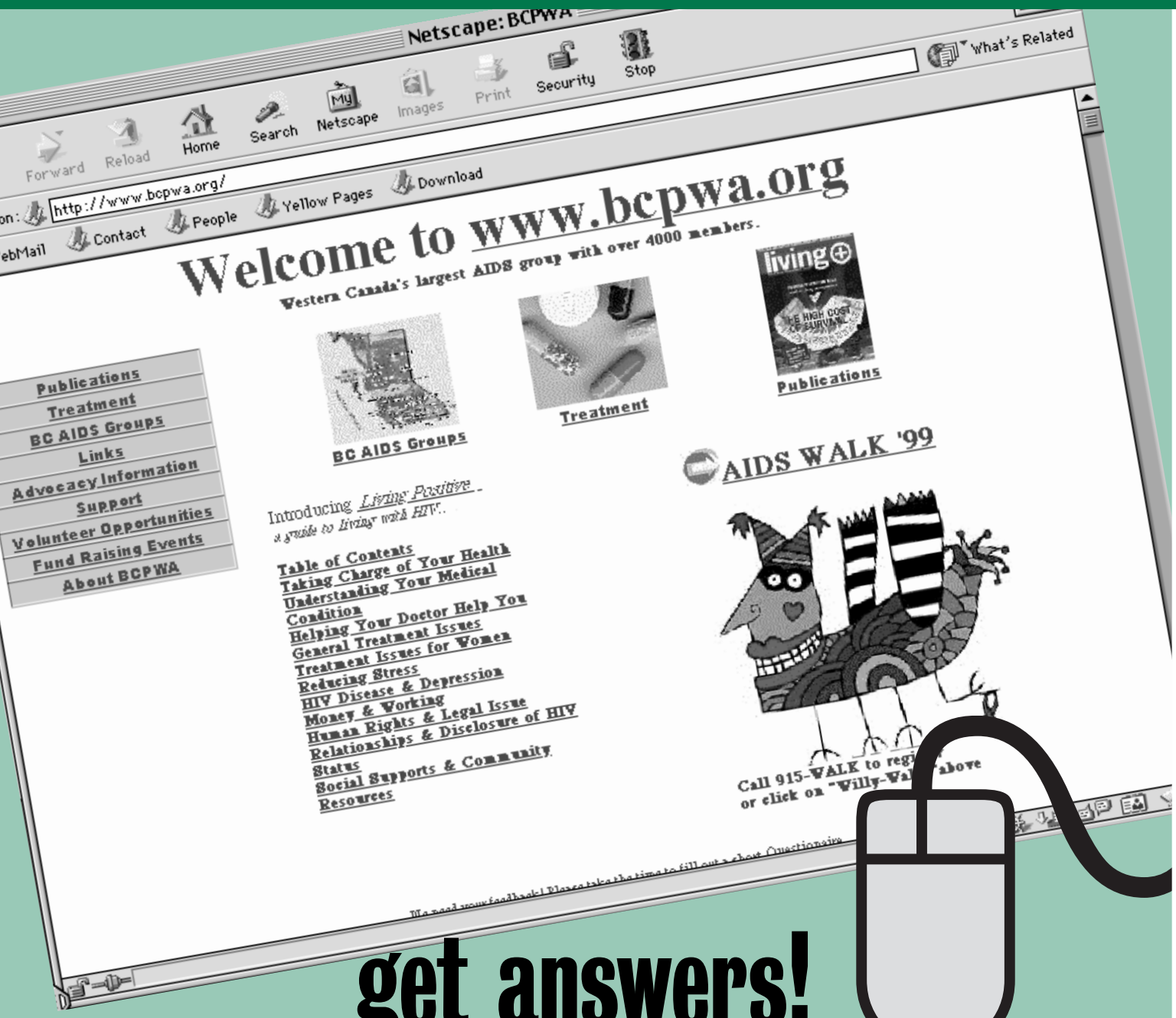
INFORMATION FAIR

Wednesday, Dec. 1
9 AM to 10 PM

Carnegie Community Centre
401 Main Street (Corner of Hastings and Main), Vancouver, BC

Over 50 information booths • Speakers, movies, candlelight memorial • Vaccinations for Hep A, B and influenza • Theatre Positive • And much more!

VISIT WESTERN CANADA'S MOST POPULAR AIDS WEBSITE



get answers!

HIV & AIDS

treatment news links

www.bcpwa.org