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News Releases Archive 1997
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2007 News

Information for patients regarding temporary shortage of medical isotopes

12/12: New study shows environmental contaminants increase risk of non-Hodgkin lymphoma

12/12: Campbell River Nurse Honoured with BC Cancer Agency Community Care Award

11/27: Empowering the mind, body and spirit a focus at the BC Cancer Agency's Community Cancer Forum

11/23: Education session on pain management geared towards Chinese patients at BC Cancer Agency's Community Cancer Forum

11/01: Chronic myeloid leukemia patients to benefit from promising new drug therapy

10/31: First of its kind lung cancer forum to be hosted by the BC Cancer Foundation

10/30: Breaking down barriers to cancer care for all Canadians

10/25: New technology developed at BC Cancer Agency may revolutionize radiation therapy delivery

10/17: Screening Mammography Program Encourages More Women to Think About Breast Health

10/11: Vancouver Canucks and BC Cancer Agency Team Up For Cancer Awareness

09/25: Radiation therapy equipment arrives at BC Cancer Agency Abbotsford Centre

09/19: BC Cancer Agency Community Care Award open to nominations

09/04: BC Cancer Agency study shows new drugs improve survival for metastatic breast cancer

08/29: Smoking causes irreversible gene damage

08/24: Canada's New Government Invests \$10.1 Million for Better Access to Cancer Care from Prevention to Palliation

08/21: BC Cancer Agency offers innovative support group for men whose partners have advanced

12/12: New study shows environmental contaminants increase risk of non-Hodgkin lymphoma

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BC Cancer Agency study largest of its kind to date

A study by BC Cancer Agency scientists provides new evidence that environmental contaminants – organochlorine pesticides and polychlorinated biphenyls (PCBs) – increase the risk of non-Hodgkin lymphoma (NHL). The study, the largest of its kind to date, will be published later this week in the *International Journal of Cancer*.

“We know that the incidence of non-Hodgkin lymphoma has been steadily rising for the past 30 years worldwide, but there hasn’t been clear evidence to explain the increase,” says Dr. John Spinelli, lead author and a senior scientist at the BC Cancer Agency, an agency of the Provincial Health Services Authority. “Our study helps to provide answers to this puzzle by showing a strong link between these specific environmental contaminants and this particular type of cancer.”

“We are also seeing incidence rates for NHL leveling off in recent years, and this provides further evidence that these contaminants are important because many of these chemicals are no longer in use or are being used at reduced and highly controlled levels,” adds Dr. Spinelli.

Dr. Spinelli and his team collected blood samples from close to 900 British Columbians – half with NHL and the other half without – and tested the samples for exposure to organochlorine pesticides and PCBs. Study participants also answered a questionnaire about demographic characteristics, sunlight exposure, medical history, and other potential risk factors.

Participants with NHL showed much higher levels of environmental contaminants than the control group. Individuals who had the highest total exposure to PCB showed twice the risk of NHL compared to those with the lowest exposure. The strongest association was observed for oxychlorane (a by-product of the pesticide chlordane). Individuals with the highest levels of oxychlorane had 2.7 times the risk of NHL compared to those with the lowest exposure.

“Looking strictly at environmental factors won’t provide the full picture,” said Dr. Spinelli. “Our next step is to identify genetic factors that make individuals more susceptible to these environmental contaminants. In this way, we may be able to determine the mechanism by which contaminants increase the risk for lymphoma, and this knowledge may help to identify environmental risk factors earlier.”

Exposure to organochlorine residuals can occur through the diet. Today in Canada, PCBs are only allowed to be used as insulating fluid in existing electrical equipment. In the past they have been used as flame retardants, hydraulic fluid, lubricating and cutting oil, and additives in pesticides, paints, and carbonless paper. Most organochlorine pesticides have been banned in Canada, but many are still in use in other parts of the world.

Environmental data contained in Ministry of Environment State of the Environment reports shows that more stringent regulation reduced the quantity of PCBs in use in Canada by 54% between 1992 and 2003. In British Columbia, PCB and organochlorine pesticide (i.e. chlordane) content in Great Blue Heron eggs has shown a similar reduction of up to 80% in eggs collected between 1977 and 1999.

“This study is very important because it adds to our understanding of how exposure to chemicals that have become very common in our environment increases our risk of developing lymphoma,” says Dr. Joseph Connors, Chair of the Lymphoma Tumour Group at the BC Cancer Agency and co-investigator on the study.

The study is funded by the Canadian Cancer Society through the National Cancer Institute of Canada, and the Canadian Institutes of Health Research. One of the authors, Carmen Ng, was supported by the Michael Smith Foundation for Health Research. The BC Cancer Foundation provides core funding for research at the BC Cancer Agency.

In 2007, an estimated 966 British Columbians will be diagnosed with non-Hodgkin lymphoma and 383 will die of it. One in 54 females and one in 44 males is expected to develop non-Hodgkin lymphoma during their lifetime. One in 119 females and one in 92 males is expected

cancer

08/20: Physical map of the bovine genome revealed

08/15: Stem cell subtypes discovered by BC Cancer Agency

08/12: BC Cancer Agency scientists discover new gene that suppresses tumour growth

07/31: B.C. First to Fund New Drug Therapies for Kidney Cancer

07/25: BC Cancer Agency study tests value of online emotional support

07/23: Improved Cancer Services for Fraser Valley Patients

07/05: BC Cancer Agency hosts public consultation on provincial cancer care

07/03: BC Cancer Agency awarded \$5 million for research into stem cell behaviour

06/25: Province Gains New Cancer Medical Technology

06/18: Stereotactic radiation therapy program celebrates 10th anniversary

05/05: Lance Armstrong to lead inaugural BC Cancer Foundation Tour of Courage fundraiser

05/02: Gene mutation lets leukemia fight drug that helps remission

04/16: New Technology Means Cancer Care Closer To Home

04/13: BC Cancer Agency sends out call for volunteers for new Abbotsford Centre

04/04: New BC Cancer Agency program brings prostate cancer treatment closer to home

04/04: Moving forward after cancer

04/02: New BC Cancer Agency study helps fight childhood cancer

03/29: Genetic link to deadly lung disease discovered at BC Cancer Agency

03/22: Mother fulfils daughter's dream to make cancer documentary (Kelowna)

03/22: Mother fulfils daughter's dream to make cancer documentary (Surrey)

03/22: Mother fulfils daughter's dream to make cancer documentary (Vancouver)

03/22: Mother fulfils daughter's dream to make cancer documentary (Victoria)

03/21: Stem cell "switch" discovered by BC Cancer Agency

Advisory - 03/19: Stem cell "switch" discovered by BC Cancer Agency

03/06: BC Cancer Agency brings "Skills for Healing" weekend

to die of Non-Hodgkin lymphoma.

The BC Cancer Agency, an agency of the Provincial Health Services Authority, is committed to reducing the incidence of cancer, reducing the mortality from cancer, and improving the quality of life of those living with cancer. It provides a comprehensive cancer control program for the people of British Columbia by working with community partners to deliver a range of oncology services, including prevention, early detection, diagnosis and treatment, research, education, supportive care, rehabilitation and palliative care. The BC Cancer Foundation raises funds to support research and enhancements to patient care at the BC Cancer Agency.

For more information or to schedule an interview, please contact:

Jinny Wu
Communications Specialist
BC Cancer Agency
Tel: 604.877.6272
Toll-free: 1.800.663.3333, ex 6272
[juw2@bccancer.bc.ca](mailto:jwu2@bccancer.bc.ca)

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retreat to Kelowna
02/19: Women in their 20's not getting regular Pap tests
February 4th is World Cancer Day
01/31: Breakthrough study at the BC Cancer Agency halts growth of prostate cancer in the lab
01/08: Kamloops caregiver honored with first-ever Community Care Award



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