

ECHO

Spotlight on research

Give it a break!

Prevention. In Switzerland, as in most western countries, breast cancer is still the most frequent form of cancer among woman. **Since 1999, mammography screening is available free of charge for women from 50 to 69 years of age.** We can only commend this initiative, adopted jointly by the Geneva Foundation for Breast Cancer Screening, the AMG and the Geneva Federation of Health Insurers. Studies conducted at international level have proved the effectiveness of this approach, with a **40% reduction** of the death rate among people who undergo regular screening. However, a basic question should be asked: According to the statistics of the Geneva Register of Tumours, **1 woman out of 4** in Geneva is affected by breast cancer before the age of 50 years. **How can we speak of active prevention if 25% of the population concerned cannot benefit from free screening?** Breast cancer screening is a problem of public health and, although we are aware that this is a delicate topic, we do hope that the authorities of our Canton will re-open the debate to enable every woman to benefit from equal treatment opportunities.

Thierry F. Ador and Olivier Ador

Living proof

Professor David Khayat, Head of the Oncology Department of La Pitié-Salpêtrière hospital in Paris, puts the emphasis on the human factor when confronted with the suffering and determination of patients. But, speaking as an oncologist, **what do patients really expect from their doctors?** "Their main desire is to live and the primary objective is to fight to make that possible. And for us this means ensuring that the patient enjoys the best possible quality of life. Just how far should we go in treatments? Do patients really want to suffer that much and to obtain what respite? By experience, I can tell you that patients are ready to endure a lot. Fortunately, medicine has made treatment more tolerable, and scales of pain measurement have been developed. But what really motivates patients is life itself. Because death is, for everybody, the most unacceptable option. Today, the success rate of treatments is improving all the time, because patients are increasingly becoming involved as partners in this battle for life."

Source : Santé Magazine, n° 322

What's up, doc?

A new weapon to defeat viruses and cancers. The process known to specialists as "**RNA interference**", the second genetic revolution after the discovery of DNA, does not activate the development of healthy cells to overcome sick cells, but, on the contrary, inhibits the development of infectious cells. Put more simply, this means "putting to sleep" certain genes that have been identified as pathogenic. A Professor at the University of Arizona made this discovery by chance at the beginning of the 90's. While experimenting on the density of petunia colouring, he introduced a second gene that was assumed to be responsible for the hue.

But, instead of becoming more intensely pigmented, the corollas remained completely white, as though the two genes had mutually deactivated each other. Since then, researchers from all over the world have been doing intensive research on this process, as it offers the advantage of affecting a specific gene only and, therefore, inhibits those genes that are responsible for the proliferation of cancerous cells.

Sources: *The Independent, Nature, Le Temps, Summer 2002*

Researchers solve medical problems, we solve their money problems

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On the front line

This year, the Foundation has benefited from the support of Loterie Romande, and thanks also to the grant made by this organization, it decided to support the research efforts of 4 new grantees:

- **Doctor Yodit Seium-Neberay**, at the Cantonal University Hospital of Geneva, to prepare a multidisciplinary consultation protocol for bony tumours, with the aim of coordinating and optimizing the treatment of these pathologies;
- **Mrs. Sabine Travers**, at the Institut Curie in Paris, whose research concerns the RGS14 protein, which is the crossroads of the signalling paths involving the G proteins of the Ras family;
- **Doctor Nicolas Mach**, at the Cantonal University Hospital of Geneva, who is working on the analysis and development of immunotherapy models and, in particular, on in-vitro tests of a vaccine;
- **Mrs. Hinda Hamzaoui**, at the Lariboisière Hospital in Paris, whose research programme concerns the molecular mechanisms governing the expression of PTHrP in human tumorous cellular lineages.

Planet research.

- Researchers have developed a new technique for the treatment of melanoma. It consists of reducing the tumours by replacing the patient's immune cells with other cells specifically cultivated to contrast the disease.

Source : Le Temps and AFP, September 2002

- A team of CNRS and INSERM researchers at the Institut Curies in Paris have identified a new genetic mutation responsible for the development of colon cancer. The researchers noted that, besides the APC gene, generally associated with the onset of this type of cancer, a mutation of the k-ras gene may also cause the tumorous process.

Source : Gastroenterology Magazine, August 2002

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Vital statistics

In Geneva and worldwide, the month of October is dedicated to breast cancer and the research in progress to fight against this disease. Since 1999, thanks to the free screening of women from the age of 50 years, an improvement can be observed in the treatment of patients, but the numbers remain alarming.

Breast cancer in Geneva

Number of women aged from 50 to 69 years	52 775
Number of breast cancers discovered per year	about 400
Number of women affected	3 800
Number of deaths per year	about 80/year
% of women who develop breast cancer	10%
Proportion of breast cancers	1/3

The screening programme

Number of women screened (1999-2000)	6 551 (12.4%)
Estimate for 2001-2002	20%
Recall rate	8%
Rate of cancer in recalled women	10%
Average age of diagnosis	61 years
Cantonal subsidy for the program	CHF 900 000/year

Source : Geneva Register of Tumours

- The papilloma virus causes 500'000 cervical cancers of the uterus every year. This cancer is one of the few that is not a result of genetic predisposition or hereditary factors, but is the consequence of a viral infection. The University of Washington, in Seattle, has tested a 100% effective vaccine, on a population of 2500 young women. The enormous interest of this vaccine lies in the fact that it allows action to be taken upstream by preventing the entry of the virus into the system.

Source : New England Journal of Medicine, November 2002

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