

# ECHO

Spotlight on research

## Give it a break!

The figures are frightening! Cancer kills more than 6 million people every year, i.e., 12% of the total number of deaths. However, in the report entitled "National programmes in the fight against cancer: management policies and principles", published at the beginning of July, the WHO expresses the opinion that current knowledge is already sufficient to curb the mortality rate. The report estimates that one third of the cancers diagnosed every year could be avoided and another third could be cured through more active and earlier prevention measures. Another argument for us, as Chairmen of the Cancer and Solidarity Foundation, to consider in the choice of the objectives we have set ourselves: **to support research and researchers by transferring to them the entire amount of the donations we receive.** Our thanks go to all the donors who support our actions and who have enabled the Foundation to make 33 grants. And thanks in advance to all those who will enable us to continue our commitment in future.

Thierry F. Ador and Olivier Ador

## Living proof

**Stress, depression and cancer: is there a link?**

Prof. Silla Consoli, Head of the Clinical Psychology and Psychiatry Department of the Georges Pompidou European Hospital, made the following comments. **Can depression contribute to the onset of cancer?** Many studies have compared populations of depressed and non depressed persons. The result? Cancer is not more frequent among the former. It is possible, however, that a chronic state of depression may favour the onset of cancer. **And can a traumatic event trigger off cancer?** It is difficult to identify a relationship. But we do know that stressful situations can temporarily alter our natural defence system that has the task of killing "bad cells". We are therefore justified in asking whether cancer, although not caused by a particularly stressful state, may be favoured by such a state. However, all this is difficult to prove and scientific work in this field remains contradictory.

Source: Top Santé n° 140

## What's up, doc?

Using a new kind of scanner, doctors will soon be able to locate tumours with a level of accuracy never achieved before. A combination of the benefits of the two best imaging techniques known to date: this is the incredible feat that has been accomplished by British scientists. Until now, medical imaging offered either "sliced" pictures of the human body, using a multi-segment scanner, or indications on the metabolism of certain cells, including cancerous cells. By combining these two techniques, the new machine offers images of unequalled accuracy. According to Professor Gustave Von Schulthess, Head of the Nuclear Medicine Division of CHU, Zurich, the "Discovery

LS system is perhaps the single most important step forward of the last 20 years as far as the detection and diagnosis of cancer is concerned". "Out of about 100 patients suffering from cancer whom we have examined with this device, we were able to observe a 60 % improvement in our ability to locate with precision a tumour within the body. At the same time, the level of certainty we have in characterising the lesion has improved by 40 %, and the images generated by the Discovery LS system have insured a better overall treatment of the disease in nearly one case out of three.

Source : [www.doctissimo.fr](http://www.doctissimo.fr)

Researchers solve medical problems, we solve their money problems

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## On the front line

This year, the Foundation has decided to support the research being conducted by **Mrs. Pascale Crépieux**. Her project concerns the signalling mechanisms that are differentially induced by the folliculo-stimulant hormone in the course of the development of Sertoli cells. Sertoli cells like granulosa cells are the only target cells of the FSH hormone. Their function is to co-ordinate the various stages of male and female gametogenesis. Transgenic experiments in mice have highlighted the role of FSH as a trophic factor in the growth of gonadic tumours. The aim of this research programme is to achieve an understanding of the development mechanisms of these tumours, as FSH is an essential component in the development of an individual's sexual cells.

## Planet research.

- Research conducted by a consortium of institutions, directed by Richard Wooster of Wellcome Trust's Sanger Institut Cancer Genome Project, have led to the discovery that **66 % of all malignant melanomas involve a mutation of the BRAF gene**. This same gene is also altered, but to a lesser extent, in many other cancers.

Source : Nature, June 2002

- To study the link existing between human papilloma virus infections and the onset of cervical cancer, researchers have followed up more than 2,000 sexually active **patients aged from 15 to 19 years**, on whom cervical smears were taken every 6 months. **After 3 years, they discovered HPV in 44 % of cases**.

Source : Top Santé N° 136

## Vital statistics

**The worldwide geography of cancer** : 10 million people affected  
**4.4 million cases in Asia** , of which 2.5 million in the Far East  
**2.8 million cases in Europe**  
**1.4 million cases in North America**  
**627,000 cases en Africa**

The WHO forecasts that cancer may affect **20 million people every year** around 2020.

### And in Switzerland ?

This disease is the **2<sup>nd</sup> cause of death** in Switzerland (after cardiovascular diseases). In our country, about **30,000 new cases** are reported every year.

**1 person sur 3** is affected during his or her life and, unfortunately, in 50% of the cases the disease is fatal. On a more positive note, in the other 50% of cases the disease is cured.

Sources : ISREC and INSERM

- A Geneva based company has developed a scanner that can visualise in real time the effect of radiotherapy on a cancer patient. **The scanner, named IRIS, reduces the risks of radiating healthy tissues and increases the effectiveness of radiotherapy.**

Source : Le Temps, June 2002

- American researchers have **identified an enzyme related to the growth of cancerous cells**. This discovery opens up prospects for developing a treatment based on the manipulation of this enzyme to fight cancer.

Source : AFP, June 2002

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