



NEWS...NEWS...NEWS

UK cancer charities discuss merger

Britain's two largest cancer charities, the Imperial Cancer Research Fund (ICRF) and the Cancer Research Campaign (CRC) are involved in exploratory talks with a view to working more closely together to understand, prevent and treat cancer.

A joint statement stressed that discussions are at an early stage, but stated, "Both organisations believe that the increased pace of cancer science is offering cancer patients real hope for the near future, and that we should explore every opportunity for exploiting our two research programmes and examine the potential benefits of integrating part or all of our activities more closely. Integration might occur in a range of ways, from joint direction of programmes currently run by the two charities to a full merger of the organisations."

The charities stressed that the decision to look at closer collaboration was taken by their respective chairmen and director-generals, who already meet regularly. The range of options under consideration include combining elements of cancer research, pooling resources more productively, and launching new joint venture initiatives which stem from shared expertise.

"This is a very exciting time in the development of cancer research and so it is appropriate to discuss now what is the best approach to maximising the benefits to cancer patients and their families of the advances in understanding that are being made every day. There is real excitement about recent scientific advance and we need to be able to exploit these as quickly as possible to get real benefits to the cancer patient and the prevention of cancer in the future," they said.

The success of the human genome project is one factor which has prompted these talks and the charities are already running a biology unit at the Sanger Centre in Cambridge — where much of the genome was mapped — as a joint venture.

A preliminary report is due to be made to the two charities' Councils at the end of January 2001. The recommendations of the Councils will be discussed with staff of both charities and no decision is expected until later in the year. A spokeswoman said the announcement had been made early because the organisations are dependent on public support and want to be open with their supporters.

The ICRF has a turnover of £115 million a year, and the CRC of £107 million. A merger would make them by far the largest fund-raising body in the UK.

(Interview with ICRF Director-General, Paul Nurse, on p. 153.)

Taxanes: 'more research needed'

Further work is needed to determine whether taxanes have a place in the standard management of breast cancer, according to an NIH Consensus Panel on Adjuvant Therapy for Breast Cancer. The panel concluded that data on use of taxanes in node-positive localised breast cancer is 'inconclusive' and said they should only be used in node-negative breast cancer in clinical trials.

Hormonal therapy should be recommended to women whose breast tumours contain oestrogen-receptor protein, regardless of age, menopausal status, involvement of axillary lymph nodes or tumour size, the panel stated. Where there is insufficient tissue to determine receptor status, the tumour should be considered hormone receptor positive, particularly in postmeno-

pausal women. Any extent of oestrogen receptor in tumour cells is sufficient to warrant use of hormonal therapy but it should not be recommended to women whose cancers do not express hormone receptor protein, the panel said.

Tamoxifen has been proven effective when used for up to 5 years, but the panel found no convincing evidence to support use for longer periods and called for clinical trials to address this question. It said there are no data to support the use of raloxifene or aromatase inhibitors as adjuvant hormonal therapy at this time. Overall, the panel considered:

- Which factors should be used to select systemic adjuvant therapy?
- For which patients should adjuvant hormonal therapy be recommended?

- For which patients should adjuvant chemotherapy be recommended? Which agents should be used and at what dose or schedule?
- For which patients should post-mastectomy radiotherapy be recommended?
- How do side-effects and quality of life issues factor into individual decision making about adjuvant therapy?
- What are promising new research directions for adjuvant therapy?

The consensus statement can be found at <http://consensus.nih.gov/>

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Improved palliation 'would halt demand for euthanasia'

Cancer specialists are calling for improvements to palliative medicine and an extension of the hospice movement in the light of the recent decision in The Netherlands to legalise euthanasia. Patients offered competent and efficient palliative care are unlikely to ask for assisted suicide, they say.

The Lower House of the Dutch parliament passed a resolution to allow medically assisted suicide in certain specific situations. It is expected to be approved by the Upper House in 2001. The move follows on from guidelines approved in 1993, which suggested that doctors would not be prosecuted for their involvement in euthanasia, even though it remained a crime.

The EORTC's task force on pain and symptom control met to discuss the decision. Professor Andreas Luebbe (Innere Medizin Onkologie, Lipp-springe, Germany), secretary to the task force, said that representatives from Portugal, Poland, Scandinavia, Iceland, Central Europe, and even from The Netherlands were in agreement. "If patient care is improved, with better communication techniques, competent and efficacious palliative medicine, and an expanded hospice initiative, we can not see that many patients would ask for assisted suicide."

He said he did not believe that the Dutch decision would influence other countries to take a similar stance. "I do not see other European countries being as open, free and liberal as The Netherlands, and I hope their decision will not be repeated elsewhere."

Professor Luebbe said that few German physicians supported the legalisation of euthanasia, partly because of the historical context. "The vast majority of experts in Germany are strongly opposed to physician assisted suicide," he said.

Aside from ethical aspects, practical problems exist, said Professor Luebbe. Evidence from The Netherlands suggests that it can take between 1 h and 7 days for someone to die after a lethal dose is given. In addition, patients not infrequently change their minds. "Someone who has had a bad morning with overwhelming symptoms may ask for assisted suicide. But after treatment,

later the same day, they may be able to sit outside in the garden enjoying the setting sun. Patients' attitudes change, and we influence their judgement with anti-depressants and anti-convulsive drugs. It is difficult to talk about true patient autonomy."

Dr Nigel Sykes, Head of Medicine of St Christopher Hospice, London, agreed that improvements in palliation are necessary. "Euthanasia continues to occur in Holland against a background of inadequate palliative care. That has always been the somewhat disgraceful aspect to this policy. There is little proper medical — in the broadest sense — provision for terminally ill people in Holland." There are few dedicated palliative care units in Holland and palliative medicine is not a recognised specialty, he said: "That may also be true of some other European countries but there are none with the very positive attitude to euthanasia that Holland has."

He said that Holland would be carefully watched for evidence of an extension of the categories of people receiving euthanasia. In the past, some without a recognised terminal illness have received euthanasia and it is possible that legalisation may lead to a gradual further extension. "Holland is the laboratory of Europe — if not of the world — on euthanasia," he said.

However, a recent study appeared to support legalisation of euthanasia. It was carried out in Flanders, Belgium, a Dutch-speaking region with a similar culture and history to The Netherlands, but where euthanasia is illegal. It found that an end-of-life decision, explicitly intended to shorten life, was involved in about 10% of all deaths (*Lancet* 2000, **356**, 1806–1811). This was similar to findings of previous research in The Netherlands, but the Belgian work found a far higher percentage of decisions taken without the patient's explicit request. The researchers concluded, "Perhaps less attention is given to requirements of careful end-of-life practice in a society with a restrictive approach than in one with an open approach that tolerates and regulates euthanasia and patient-assisted suicide."

Increasing demand for PET

Any cancer centre with a catchment population of between 1 and 2 million people provides sufficient demand to occupy two PET (positron emission tomography) scanners full-time, say researchers (*Lancet* 2000, **356**, 1702–1703). PET has moved from research into clinical practice and is forcing a reassessment of conventional staging with computer tomography (CT) and magnetic resonance imaging (MRI) in certain cancer groups, they say.

PET is cost effective in staging of lung cancer and is now included in British Thoracic Society guidelines. Its use has been shown to change management of colorectal cancer in 29% of cases. In lymphoma, PET identifies more sites of disease than CT scans, including extranodal sites, and has a major impact on management. Another recent study (*J Clin Oncol* 2000, **18**, 3202–3210) found that it significantly improves the detection of stage IV disease in oesophageal cancer, compared with conventional staging modalities. Tumour stage in oesophageal cancer provides the basis for selection of the most appropriate therapeutic strategy.

The *Lancet* commentary urged physicians to consider the potential of PET in planning and monitoring treatment for all tumour types. Drug therapy is limited by the development of second tumours that may appear years after an apparent cure and they say, "It is possible that PET can be used to tailor therapy to the patient and reduce long-term side-effects."

New number one

Cancer has become the leading cause of death among both men and women in Britain, government statistics show (*Health Statistics Quarterly* 2000, **8**). The Department of Health announced that between 1950 and 1999, deaths due to cancer rose from 15 to 27% in men, and from 16 to 23% in women. Cancer has now overtaken the other major killers of heart disease, stroke and infectious diseases.

The figures also show that people living in more deprived areas are at greater risk of developing and dying from 10 of the major cancers.

Breast-feeding 'protects against childhood leukaemia'

Prolonged breast-feeding may protect children against some cancers, according to a new study, published in this issue (pp. 234–238). Babies who were breast-fed for 6 months or less had almost 3 times the risk of childhood leukaemias and lymphomas, compared with those breast-fed for longer.

The research was carried out in the United Arab Emirates, among a population of Bedouin Arabs with a strong tradition of breast-feeding. The study included 117 children diagnosed with acute lymphocytic leukaemia (ALL), Hodgkin's (HL) and non-Hodgkin's lymphoma (NHL) between the ages of 1 and 15 years. They were compared with 117 healthy children of the same age, sex and ethnicity. Mothers were interviewed by telephone.

Researchers found that healthy children were breast-fed for significantly longer than those with these cancers: for a median of 10 versus 7 months. Those breast-fed for 6 months or less had 2.8 times the overall risk of leukaemia or lymphoma, around 4 times the risk of HL and NHL, and 2.5 times the risk of ALL.

Household crowding was greater among patients than controls. Patients were, on average, of higher birth order, from families including more children and from households including more people. Researchers say this supports the hypothesised role of unspecified viruses in the development of acute leukaemia and lymphomas.

An accompanying editorial (pp. 155–158) points out that breast milk provides both short- and long-term protection against infection. "It is entirely plausible that the immunomodulating activity of breast milk could modify the response to post-natal antigenic exposures and thereby reduce the susceptibility of individuals to a potentially leukaemogenic exposure," it states, and adds, "Women must be strongly encouraged not only to initiate breast feeding but also to maintain it for as long as possible during the first year of their babies' lives."

Pesticides linked to NHL

Children exposed to household pesticides have a significantly increased risk of developing non-Hodgkin's lymphoma (NHL), American researchers report (*Cancer* 2000, **89**, 2315–2321). A multicentre trial conducted under the auspices of the National Cancer Institute found that children living in homes where pesticides were used most days had seven times the risk of NHL compared with those not exposed. By contrast, professional exterminations increased the risk 3-fold. Direct postnatal exposure was as strongly linked as maternal exposure during pregnancy.

The study included 268 children and adolescents aged up to 20 years, who were diagnosed with NHL or leukaemia with bulk disease between 1986 and 1990. They were matched with randomly selected population

controls. Telephone interviews were conducted with mothers.

The risk varied with different types of NHL, and for lymphoblastic lymphoma, for example, pesticide exposure increased risk of 12.5 times.

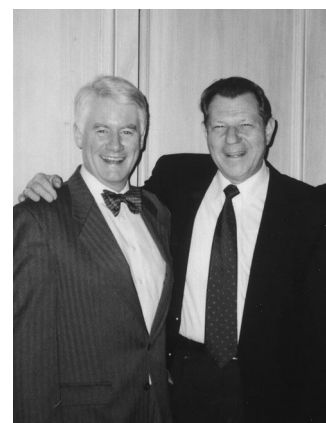
Pesticides are a group of chemicals that have little in common except their ability to kill insects, plants, mammals (particularly rodents) or fungi. "There literally are thousands of pesticides in use, hundreds of which may be used around the home, that differ enormously in their structure and mode of action. It is likely that a limited number these compounds may be capable of inducing lymphoma," the study reported. Researchers called for further, larger studies, to examine in more detail the duration and intensity of pesticide exposure.

Goodbye to Professor Senn!

EJC societies, editors and publishers bade farewell to Professor Hans-Jörg Senn, at a dinner in London, November 2000. Professor Senn was Editor-in-Chief from 1995, and on behalf of Elsevier Science, Publishing Director Lynne Herndon thanked him for all his work over the years.

Professor Senn handled clinical oncology papers as well as being Editor-in-Chief; he set up the News section in collaboration with the societies; he oversaw a constant improvement in the quality of papers published as *EJC* achieved its highest rejection rate ever — which boosted the impact factor — as did the two special issues a year.

Associate editors, Dr Jan Willem Coebergh and Professor Ian Hart,



*Professor John Smyth and
Professor Hans-Jörg Senn*

attended the dinner, along with society representatives Professor Jean-Claude Horiot (EORTC); Dr Klaus Schlaefer (EACR); Professor Luigi Cataliotti (EUSOMA); Dr Alberto Costa (ESO); and Ms Kris Vantongelen (FECS). Past and present editorial and publishing staff included Dr Anne Lloyd, Dr Peter Harrison, Ms Linda Brooks, Dr Emma Cannell, Dr Delfine Purves and Dr Beat Thürliman. Mrs Senn was also present.

Incoming Editor-in-Chief, Professor John Smyth joined in the congratulations for Professor Senn and said he was very excited to be taking over *EJC* at such an important stage of its evolution.



Professor and Mrs Senn

AWARDS AND APPOINTMENTS

New head of ASH

The American Society of Hematology (ASH) has announced that Dr Beverly S. Mitchell (University of North Carolina, Chapel Hill) is to be its new President. She is currently Head of Haematology and Oncology at the Lineberger Comprehensive Cancer Center.

Dr Mitchell's research focuses on tissue-specific regulation of gene expression, the role of nucleotidases in chemotherapeutic sensitivity and resistance, the identification and specificity of other nucleotidases with therapeutic relevance and the role of the enzyme terminal deoxynucleotidyl transferase (TdT) and its cognate in DNA repair and mutagenesis.

After graduating from Smith College, she received her MD from Harvard Medical School. She completed her residency in internal medicine at the University of Washington, Seattle, and completed fellowships in metabolism at University of Zurich and in haematology/oncology at University of Michigan, Ann Arbor. Dr Mitchell has been an active member of ASH and has served as both vice president and treasurer.

Tamoxifen research rewarded

Professor V Craig Jordan, Professor of Cancer Research (Northwestern University, Chicago) has received an honorary faculty fellowship award and silver medal from University College Dublin for his work on tamoxifen for the treatment of breast cancer. Professor Jordan gave an award lecture on the development of tamoxifen over the past 30 years.

Professor Jordan has also received the Strang Award from Cornell University Medical School, New York, for work on tamoxifen and raloxifene in chemoprevention of breast cancer. He was the first scientist to note that tamoxifen, an anti-oestrogen drug originally developed as a contraceptive, prevented the growth of breast tumours in rats. In the 1970s he also showed in the laboratory that long-term tamox-

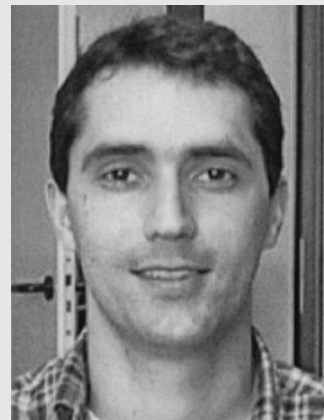
Health economics move centre stage

Economic considerations are set to play a crucial role in determining future cancer therapies, according to Thomas Roy, research fellow at the EORTC's Health Economics Unit in Brussels. "Analysis of cost-effectiveness is becoming increasingly important in establishing state-of-the-art cancer treatments," he said.

Mr Roy began his EORTC research fellowship a year ago and, under the supervision of Ralph Crott, he is participating in projects assessing cost effectiveness and benefits of various cancer treatments. He previously worked at the Research Group in Health Economics and Networks in Cancer Care (GRESAC), based in Lyon, France, where he took a research degree in Health Economics, a degree in Mathematics Engineering and a Masters in Mathematics and Health Sciences.

Mr Roy has presented economic impact assessments at the 1st European Conference on the Economics of Cancer, and at various other meetings. He is currently working on three main studies at the EORTC: a

testis, a colorectal and a leukaemia study, which will soon be published. "What I hope for the future is that the Unit becomes better-known to clinicians and healthcare providers.



Mr Roy

The Unit should have and will probably play a more important role in the near future when results of clinical trials linked with health economics evaluations become available", he says.



Professor Craig Jordan

tive oestrogen receptor modulation is an important property of nonsteroidal anti-oestrogens allowed tamoxifen to

be tested as a chemopreventive agent in women, since it suggested that the drug would not harm bones or predispose to coronary heart disease. He also recognised the bone-sparing properties of raloxifene that ultimately resulted in its use to prevent osteoporosis. Professor Jordan is scientific chairman of the Study of Tamoxifen and Raloxifene (STAR) in the US and Canada, which is examining the drugs' potential to prevent breast cancer among high risk women.

After taking his first degree — in pharmacy — and doctorate at the University of Leeds, UK, Professor Jordan worked in Massachusetts; Bern (Switzerland); and Wisconsin before taking up his current post in Chicago. He is an editorial consultant of *EJC*.

Samantha Christey
EORTC Communications Officer

INTERVIEW

Dr Paul Nurse is Director-General of the Imperial Cancer Research Fund in London, and head of its cell cycle laboratory. He has received numerous prizes for scientific research, including the Albert Lasker Award, dubbed the American Nobel. He was knighted in December 1999.



Dr Paul Nurse

Where did you train?

I studied biology in Birmingham and took my Ph.D. in cell biology in East Anglia. I've worked in Edinburgh, Sussex and Oxford as well as at the Imperial Cancer Research Fund in London.

Who inspired you?

In modern times, Francis Crick and Sidney Brenner because they designed highly imaginative, often abstract experiments, which gave clear answers to the question involved. Historically, Erasmus and Charles Darwin. Erasmus, Charles' grandfather, was imaginative, had a wide range of interests, and like his grandson was an advocate of evolution. But it was Charles who came up with the mechanism of natural selection — a beautiful idea — underlying evolution.

Why did you choose to work in the field of cancer?

I didn't, exactly, but the area of biology I chose turned out to be highly relevant to cancer. I was interested in how cells reproduce, which is relevant to cancer, a somatic genetic disease

generated by DNA damage when cell reproduction is not properly controlled.

Might you have done something else altogether?

At school, I was uncertain whether to study science or English, with a romantic view to working in theatre, producing plays. That would almost certainly never have panned out, but I'm still interested in theatre and harbour an ambition to read poetry on the radio!

What has been the highlight of your career to date?

I had worked with yeast for a number of years, studying the set of genes that control the reproduction of cells. The highlight was when, together with the people in my lab. at ICRF in London, I discovered that a key gene, *cdc-2*, discovered in yeast was conserved in human beings. It meant that control of cell reproduction was the same in the simplest organism, yeast, and in the most complex, humans — and was, therefore, common to all living things.

... and your greatest regret?

I have been lucky in my career, but around 1980, I had a difficult time finding a position. I was turned down by a number of universities and research institutions and had to struggle for a while. It was disappointing at such an early stage of my career.

If you could complete only one more task before you retire, what would it be?

I would like to promote cooperation between the biomedical sciences and other disciplines such as physics, chemistry, mathematics and information sciences. Biology is at an interesting stage, with much information and description but we now have to turn it into understanding. The methodologies used in some of the other sciences will help greatly.

What is your greatest professional fear?

Following on, that biology and medicine will become obsessed with description, not understanding. Genet-

ics and molecular biology research is full of detailed descriptions of things changing up and down, which is important, but we must not become fooled into thinking descriptions will lead to understanding. They simply provide the basic information for us to work with and generate subsequent understanding.

What impact has the Internet had on your working life?

Almost zero. I see my colleagues using it but I'm a complete computer dinosaur, the least adept computer and Internet user you will ever come across!

How do you relax?

By doing something else! I'm interested in astronomy and have a telescope; I have a glider pilot's licence and love flying. I enjoy hill walking, and going to the theatre.

Who is your favourite author?

There are so many, but among modern authors, I would pick out William Golding and Marguerite Yourcenar. They are both thoughtful and, therefore, stimulating.

What do you wish you had known before you embarked on your career?

When I started out, the idea of a career in research seemed stress-free. I was wrong. In research, you have a responsibility to ask difficult questions and if you do, you are always on the verge of failure. Unless you ask these questions it is not very interesting, but you get many disappointments and you have to be pretty resilient to keep going over many years.

What piece of advice would you give someone starting out now?

To be bold, different — and ignore the advice of your elders.

What is your favourite carcinogen?

It would have to be alcohol — I don't mind a beer or a glass of wine at the end of the day (and sometimes earlier than that!)