would have access to counselling and up-to-date clinical information, and the opportunity to take part in intervention studies.

According to a report by Susan Jenks [1] the subcommittees will have to decide how to set up a national system that meets research needs without compromising patient confidentiality; how to set up longitudinal studies that tie in with existing NCI efforts; and how to develop educational materials for healthcare professionals outside the oncology community who may treat patients who identify themselves as being at high risk of certain cancers.

Key network centres

The major centres of the network are likely to be the NCI's 28 comprehensive cancer centres, supplemented by institutions that specialise in genetics research and counselling.

The comprehensive cancer centres embody a multidisciplinary approach to cancer research, patient care and community outreach. The NCI criteria for "comprehensiveness" include the requirement that a centre have: • a strong core of basic laboratory research in several scientific fields; • a strong programme of clinical research; • and an ability to transfer research findings into clinical practice.

1. Jenks S. NCI plans National Cancer Genetics Network. *J Natl Cancer Inst*

Hand-held Cellular Telephones and Adult Brain Cancer

A comprehensive study of malignant and benign brain tumours to identify whether hand-held cellular telephones and other environmental and genetic factors cause tumours is underway. National Cancer Institute, U.S.A., researchers and other researchers intend to examine factors that may affect brain cancer incidence, including occupational exposures, diet, vitamin supplements, use of home appliances and cellular telephones, reproductive and medical history, inherited susceptibility, and other factors.

The NCI case–control study, directed by Elizabeth Hatch, is being conducted at hospitals in Phoenix, Pittsburgh and Boston. By the end of 1998, the researchers plan to enrol about 700 newly diagnosed brain tumour cases and an equal number of controls. The controls are patients admitted to the same hospitals with a variety of non-cancer diseases or conditions.

Information will be obtained about use of cellular telephones, including the types of phones used (hand-held, car, transportable cellular phones or cordless phones) and frequency and duration of use. The researchers will also examine the consumption of foods and beverages containing N-nitroso compounds or their precursors and consumption of vitamins, fruits and vegetables; medical and dental exposures to ionising radiation; reproductive histories; exposures to viruses; and other pre-existing medical conditions. Data collection began in 1994 and will finish at the end of 1998. Separate analyses will be conducted for different brain tumours.

Previously, a number of studies on the possible health effects of low frequency electromagnetic fields emitted from powerlines, transmitters, household items such as computers, TV sets, electric blankets and microwave ovens have been completed. Thirteen studies relate to children, and five to adults. According to the National Institutes of Health, "So far, the findings have yielded mixed results in children, while no association between adult cancer and EMF has been found. Furthermore, no correlations have been observed between 'directly measured' residential EMF exposures and risk for either children or adults. While occupational studies have suggested a link between EMF exposures and adult leukaemias and brain tumours, only four of these investigations have included measurements, and findings have been inconsistent."

In addition to the study on adult brain cancer, the NCI is teaming up with the Children's Cancer Group on a large-scale investigation to determine whether exposure to extremely low-frequency EMFs contributes to the development of acute lymphocytic leukaemia (ALL) in children under the age of 15 years. The EMF study is part of a larger Children's Cancer Group study of over 1900 ALL cases and 1900 controls. For the EMF evaluation, more than 600 children with ALL and more than 600 controls were selected from those participants in the larger group.

This study will provide one of the first comprehensive and complete measures of EMF exposures in households with children. Results should be available late 1996 or early 1997.

From Europe

Rise in Testicular Cancer Incidence in Six European Countries

The age-adjusted incidence of testicular cancer is increasing annually in six European countries namely Denmark, Norway, Sweden, the former German Democratic Republic (East Germany), Finland and Poland. Rates range from 2.3% in Sweden to 5.2% in East Germany.

This was the finding of Dr Reinhold Bergström and colleagues from the Departments of Cancer Epidemiology and Statistics at Uppsala University, Sweden [1]. They studied a total of 30 908 incident cases of testicular cancer, diagnosed from 1945 through 1989, in men who were 20-84 years of age and on population-based cancer registries.

Birth cohort

Birth cohort was found to be a stronger determinant of testicular cancer risk than was calendar time for all six populations. Little variation in testicular cancer risk was observed for men born between 1880 and 1920, but after that the risk began to increase. Among men born in Denmark, Norway and Sweden between 1930 and 1945 (a period that included the Second World War), the increasing trend levelled off. After 1945, an uninterrupted increase in risk was observed for all six populations. The authors reported: "With men born around 1905 as the reference group, the relative risk of testicular cancer for those born around 1965 varied from 3.9 (95% CI 2.7–5.6) in Sweden to 11.4 (95% CI 8.3–15.5) in East Germany." write the

authors.

The researchers comment, "We found it particularly interesting that the increase in risk was arrested around men born in the late 1930s and early 1940s in the Scandinavian countries. We found no corresponding arrest outside Scandinavia. However, such a change in trend has been noted previously, not only in Denmark and Norway, but also in British Columbia. With the exception of the 'wartime effect', the results from the different countries included in this study show a surprisingly congruent pattern."

Paradoxical finding

They noted that the increasing trend in young age groups appeared to continue even in the most recent cohorts analysed (among men born around 1960).

"The underlying exposures responsible for the temporal trends increased more rapidly, uninterrupted by wartime, in East Germany, Finland and Poland than in the Scandinavian countries, which were much less affected by the war. It is a real challenge for epidemiologists, in their future aetiologic studies, to identify exposures that tally with this paradoxical finding," the authors conclude.

1. Bergstrom R, Adami H-O, Mohner M, *et al.* Increase in testicular cancer incidence in six European Countries: a birth cohort phenomenon. *J Natl Cancer Inst* 1996, 88, 727–733.

Now Available: EORTC Organisation Activities and Current Research 1996–1997

The latest edition of the EORTC's Organisation, Activities and Current Research Directory is now available. The edition contains key information on the structure of the EORTC, its achievements and activities, and the telephone numbers and addresses of all the major participants in EORTC activities.

Says Professor J. Gordon McVie, President of the EORTC, "The EORTC goes from strength to strength. The academic output is exceptional and, more importantly, there is evidence that clinical practice in European oncology continues to be influenced by results of EORTC research."

In his foreword to the new directory he congratulated Professor Françoise Meunier on her appointment to the new position of Director General of the EORTC. "She has transformed the Data Centre within a very short time, improved the awareness of EORTC, and spearheaded the search for new sources of monies to protect the vital core work of the organisation," he said.

Professor McVie called for more funds for the EORTC: "The EORTC is now a multi-million dollar organisation involving 31 countries and is clearly the leading authority in clinical research. Its financial position must be bolstered if it is to maintain its current high standards and improve efficiency and influence."

To obtain a copy of the directory, please contact Dominique Eeckhoudt, Executive Secretary at the EORTC Central Office. Tel +32-2-774-1629; Fax: +32-2-772-3545.

Professor Françoise Meunier
"She has transformed the Data Centre within a very short time and improved the awareness of EORTC", says Professor J. Gordon McVie.

From the Countries

SWEDEN

Age at First Birth is Key Factor in Breast Cancer in Swedish Women

Recent claims that age at last birth has a stronger effect than age at first birth on breast cancer risk have been contradicted in a population of Swedish women.

In a case–control study nested in a nationwide cohort of Swedish women born between 1925 and 1960, a total of 12 782 women with breast cancer and five times as many individually age-matched controls, aged less than 60 years with concomitant fertility information, were studied [1].

Dr Mats Lambe, Department of Cancer Epidemiology at University Hospital, Uppsala, Sweden and colleagues write: "In an analysis limited to women with two or more parities, and after adjustment for the effects of ages at interim births, the risk of breast cancer increased by about 13% for each 5-year increment in age at first birth. For every 5-year increase in age at last birth there was a small risk increase of marginal statistical significance." Increasing parity was associated with a marked decrease in the risk of breast cancer; each additional birth conferred a 10% risk reduction.

In fact many epidemiological studies had previously concluded that age at first birth was a key modifier of breast cancer risk. The authors state: "However, recent studies from both low and high parity populations have challenged this view, suggesting that age at last birth may have a more dominant effect on breast cancer risk, possibly as a result of the postulated shorter adverse effects of childbearing." This new study clearly refutes this theory in Swedish women.

1. Lambe M, Hsieh C-C, Chan H-w, *et al.* Parity, age at first and last birth, and risk of breast cancer: a population-based study in Sweden. *Breast Cancer Res Treat* 1996, 38, 305–311.