

VICTORIAN CANCER NEWS



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VICTORIAN CANCER CONGRESS, 1960

The Anti-Cancer Council of Victoria has decided to hold a Cancer Congress in Melbourne from August 22nd to 25th, 1960. Several distinguished guests from the United Kingdom and the United States have been invited, and it is hoped that there will be a large attendance from the other States and from New Zealand.

The Congress is the first of its type to be held in this country. The subjects for discussion in the medical and scientific fields will include cancer of the lung, cancer and pre-cancerous conditions of the skin, leukaemia and experimental research. In addition, problems of cancer as it affects the community at large will be discussed by educational and social welfare authorities.

One of the main objects of the Congress will be to relate features of cancer which are peculiar to Australia to experience in other countries. Another will be to further co-operation with the other States in the fight against cancer.

A public exhibition is to be staged in the Melbourne Town Hall in conjunction with the Congress. This will probably include a photographic display illustrating various aspects of cancer work in Victoria, a display of international cancer posters and scientific exhibits. Film shows and public lectures will also be presented.

WORK IN ALL FIELDS

SPENDING ANTI-CANCER "MILLION" IN VICTORIA

CANCER is older than the history of medicine. It was probably known to the ancient Egyptians. Eight cases of "tumors or ulcers" are recorded in the Edwin Smith Surgical Papyrus, written between 3000 and 2500 B.C.

Hippocrates, the father of medicine, described cancer symptoms. In following centuries, the disease was generally treated with harsh courses of purgatives.

For all this long medical history, cancer has been — and remains — one of medicine's greatest problems. It killed 3643 Victorians in 1958.

It is now more than a year since awareness of this problem so aroused the Victorian public that they subscribed more than £1,350,000 to the Anti-Cancer Council for fresh efforts in cancer research, treatment and education.

The year since has produced an active State-wide attack on all aspects of the cancer problem. Research has been rejuvenated, public education has advanced and treatment

About £104,000 of that amount is to be spent to subsidise research at various institutes and hospitals in Melbourne.

Public and professional education will absorb between £10,000 and £15,000, and a similar amount is to be spent on the welfare of cancer sufferers.

The Anti-Cancer Council has also undertaken to provide £50,000 toward the cost of providing more beds for cancer patients at the Caritas Christi Hospice. The Anti-Cancer Council is spending both capital and income. Proceeds of last year's appeal will probably be exhausted within 10 years.

begun planning a cancer congress, to be held in Melbourne in August next year.

This congress will bring cancer authorities from overseas research centres to Australia. It should be of inestimable value to the Australian medical profession.

No matter how advanced the knowledge and techniques of doctors, anti-cancer work would be severely handicapped unless the public attitude was trained to take the best advantage of the professional facilities offering.

distributed through the State Film Centre. Most of the films are American. All are to be checked by medical "censors" before distribution.

A photographic exhibition is being prepared in Melbourne. It probably will be shown to the public in conjunction with next year's cancer congress.

All this is work for the present—work to ease the burden for sufferers, work to strengthen the will of potential sufferers. It makes present methods and facilities more efficient.

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There is a direct link between the extraordinarily successful 1958 anti-cancer appeal and a gathering of about 330 doctors at the University of Melbourne to-day.



THIS gathering is the first of two professional symposiums on cancer topics arranged by the Anti-Cancer Council through the Medical Post-Graduate Committee.

Specialist doctors will speak to non-specialist doctors on the latest developments in the diagnosis and treatment of cancer.

Lectures will range through anatomy, physiology, pathology, surgical treatment, the role of hormones, palliation and terminal care and the results of treatment as shown in the figures of the cancer registry.

The aim is not to teach surgeons, but to educate the general level of the profession in the latest anti-cancer techniques.

The field of professional education is a minor but vital part of the Anti-Cancer Council's work.

It is one of the butresses of the building now being erected on the foundation of the £1,350,000 subscribed by the public last year.

During the course of the appeal, the council announced that it planned to allot 75 per cent. of the proceeds to research on cancer, 12.5 per cent. to lay and professional education and 12.5 per cent. to assistance to cancer sufferers.

This division of spending is being generally, although not rigidly, followed.

The budget for 1959 is of the order of £200,000.

ease one of the most urgent problems facing the council.

Public hospitals are mostly overcrowded and cannot spare beds for patients whose hope of recovery is slim, but whose treatment has all but ended.

Too often terminal patients are sent home (if they have a home) to

cause hardship to their families (if they have a family) and to suffer their death pangs in unattended loneliness.

The Anti-Cancer Council is attempting to "fill in" for the hospitals.

It subsidises an almoners' service for patients who cannot find hospital beds; it arranges transport to Melbourne and accommodation for country patients in need of treatment in the city, and it helps to care for the family of a patient while she or he is being treated.

The money to be devoted to public and professional education in cancer will pay no quick dividends, but might, in the long run, be the soundest investment of all.

In addition to the two symposiums for doctors already arranged, a series of four lectures a year by local and inter-State experts will begin in August.

The first, on cancer of the thyroid, is to be delivered by the professor of surgery at Adelaide University (Prof. R. Jepson)



A COMMITTEE under the leadership of Sir William Upjohn has

ing traces of this attitude, the 1958 reaction to the anti-cancer appeal should have finally dispelled them. The public is avid for knowledge, and is prepared to take the responsibilities which the knowledge might bring.

The Anti-Cancer Council has already started on a campaign to inform the public about cancer. The campaign should be more than

ever obvious in the next few months.

Professional and lay speakers on cancer have already given 70 talks to various organisations in Victoria this year.

Large posters are now appearing in trams, trains and buses. They outline the "seven warning signs" associated with cancer and encourage those in doubt to see their doctor at once.

Three hundred thousand leaflets on similar lines are being distributed through life assurance companies.



IN 11 country areas covering all of Victoria, regional cancer committees of voluntary officials have been set up. The committees include hospital representatives, doctors and leading citizens.

Their main aim is to keep anti-cancer work continually in the public view and to arrange the welfare of cancer patients—a sort of decentralisation of some of the functions of the Anti-Cancer Council.

A new development is a library of anti-cancer films,

Accomplishment is inseparable to the public eye.

It can only be said that large sums have been given to university departments and hospitals for increased research into cancer. The rest depends on our faith in our institutions.



THE University Department of Pathology is doing fundamental research on the production of cancer in animals with £17,000 donated by the Anti-Cancer Council.

Its work has produced already a new method of distinguishing cancerous tissue from ordinary tissue with a fluorescent dye.

At the Alfred Hospital, an Anti-Cancer Council endowment of £35,000 is being used to develop television as a means of diagnosing and treating cancer.

Research projects such as this can be found in many other Melbourne institutions. The Anti-Cancer Council, using money given by the people of Victoria, is actively backing them.

In the normal human body, the various tissues and organs are kept at a high standard of repair and efficiency by a carefully controlled process of cell division.

The cancer cell is uncontrolled. It divides frequently into similar cancer cells in a disorderly fashion.

The Anti-Cancer Council's work, with its £1,350,000 of public good will, is in the pattern of the healthy body's cell. . . orderly, organised and efficiently functional for the diverse demands of a great human problem.

JAPANESE DOCTOR TO HELP WITH LEUKAEMIA RESEARCH

Dr. K. Nakamura, a leading Japanese research worker specialising in leukaemia, will arrive in Melbourne in December to continue his research. He has been working in Japan under Professor I. Yoshida, a world authority on the subject, and is visiting Melbourne on a fellowship provided by the Anti-Cancer Council.

Dr. Nakamura will work with Dr. Donald Metcalf in the Carden Laboratory at the Walter & Eliza Hall Institute of Medical Research. Dr. Metcalf himself returned to Australia last year after two years study in the United States. Space for the Carden Laboratory (consisting of four laboratories and four animal rooms), was kindly provided by Sir Macfarlane Burnet, O.M., F.R.S., the Director of the Institute.

A large colony of inbred mice, including strains particularly prone to develop leukaemia, has been built up and now totals some 6,000 mice. Dr. Metcalf's current research programme is a continuation of his studies on the mechanisms regulating the production and life cycle of the lymph cell, and the abnormalities in these mechanisms responsible for the development of lymphatic leukaemia.

SECOND ACCELERATOR FOR PETER MacCALLUM CLINIC

A second megavoltage linear accelerator for the x-ray treatment of cancer patients will be installed next year at the Peter MacCallum Clinic in Melbourne.

The new machine will be supplied by the English firm of Mullard Equipment Limited, and should be in operation at the Clinic by the end of 1960. A two-story building at the Clinic will be demolished and a new unit erected to house the machine and its ancillary services.

The accelerator's output of x-rays is more than ten times that of conventional x-ray therapy machines and will enable treatments to be given at the rate of about 50 daily - three times as many as can be given with conventional apparatus. Its higher voltage rating produces a beam of greater penetration, reaching cancers seated too deep for effective treatment with less powerful machines. A rotating gantry enables the beam to be directed precisely to the affected area at the required angle.

When installation is completed, the Clinic will be the first institute in the world to have two accelerators operating at the same time. The cost of the new machine, about £60,000 sterling, will be met by the State Government.

REGIONAL NEWS AND VIEWS

Chairmen's Conference

On November 30th 1959, a Conference of Chairmen of the Regional Committees and Sub-Committees will be held at "Chevron", St. Kilda Road, Melbourne. Sponsored jointly by the Cancer Service Committee and the Public Education Committee, the Conference will discuss plans for expanding and co-ordinating the welfare and education programmes in country areas during 1960.

A special film programme is being arranged for delegates and they will also have the opportunity to inspect a research project supported by the Anti-Cancer Council.

The Council is confident that the Conference will make a valuable contribution to cancer work in Victoria and extends a sincere welcome to all country representatives.

Education Notes

Formation of the 11 Regional Committees was completed in the first half of this year, and several Committees have already launched education projects.

Bendigo recently held a film-preview night attended by most members of the Committee, including a medical representative. Six films used in connection with the metropolitan education programme were screened. Arrangements have since been made for a selection of the films to be shown for the information of trainee teachers at the Bendigo Teachers' College, and a speaker from Melbourne has been invited to talk to the students at the same time.

Hamilton has arranged for the local Boy Scouts troop to distribute copies of the leaflet "Cancer Facts For You" in the city. In addition, a local doctor has agreed to give a series of short educational talks on cancer on station 3HA.

Mildura is arranging for photographs illustrating cancer work and equipment to be published in the local daily press. This Committee is also distributing "Cancer Facts For You" through local chemists, and in co-operation with the local Branch of the Red Cross has arranged a display on its table at the Mildura Show.

Welfare Notes

In talking about patient aid, we have often mentioned that Anti-Cancer funds are to be used to supplement existing social services. Many people - one could say most people - are not aware of the many services which exist in the community, to which they may apply for assistance in times of illness or economic distress. Letting people know about these services and helping them to make application for them, is one way in which Hospital Almoners and Regional Cancer Committees in the country are aiding cancer patients. Recently we have helped in this way in the following cases.

An elderly migrant had been ill for some weeks when he was referred to the Anti-Cancer Council. No money was coming into the home and neither the patient nor his wife and daughter knew that he could apply to the Commonwealth Department of Social Services for Sickness Benefit. They were told about this and application has been made to the Department.

In another case, in the metropolitan area, a husband wished to have his wife nursed at home rather than in hospital, and the patient too was most anxious to be at home. Arrangements were made for the Peter MacCallum Nursing Service to visit and with their aid and the co-operation of relatives, the patient has been kept at home as long as possible.

One of the country committees referred a patient who was a widow with a large family. She was then in hospital and it was thought that she might need some help. Her income was a Widow's Pension and Child Endowment. It has been necessary for two of the children to be boarded out with friends. The possibility of applying to the Children's Welfare Department for assistance for her children under fourteen years was discussed with the patient and an application has now been made on her behalf.

These are just a few examples of how patients can be helped to use existing social services.

THE CELL

(We are grateful to the Canadian Cancer Society for permission to reprint this article from the "Canadian Cancer Society Newsletter", April, 1958.)

In many laboratories in many countries the structure and peculiarities, the likes and dislikes of a minute living structure called the cell are being studied. Some scientists are using the reaction of living and dead cells to different stains which produce specific colour changes in the search for better methods of identification of structure. The same desire has spurred the development of the electron microscope which by magnifications of up to 100,000 times has added much new information about the cell. Other workers are growing cells in test tubes containing different kinds and amounts of chemicals in order to determine their needs.

But what is the cell and why is it so important to understand it? In the human it is a tiny unit of life which is 1/1000 of an inch in diameter or less. It is the least common denominator of life which was described and named about 300 years ago by an English physicist named Robert Hooke and an English plant anatomist with the improbable name of Nehemiah Grew. The name "cell" which came from a Latin word meaning "chamber" was coined to describe the empty spaces in dead plant tissue such as cork. In the living tissue the spaces are filled with a very complex material and in animal tissues the structure is seldom if ever made up of a honeycomb structure such as occurs in plants. But since the term "cell" has come to have a meaning which is generally understood it has persisted.

It is a fundamental fact that all living things are made up of one or more cells. These vary from the simplest and most primitive organisms which consist of a single cell and which can be seen only with the aid of a microscope to the most complex organisms such as man whose body is estimated to consist of several quadrillion cells.

Each cell is composed of a vital and mysterious substance called protoplasm - a name which cloaks a great deal of ignorance about its nature. The protoplasm is subdivided into two main categories called the nucleus and the cytoplasm.

The nucleus is a round body with a clearly defined outline or membrane. Because of its characteristic reactions to stains it can be seen as a prominent portion of the cell in a properly stained slice of tissue. It is the most important part of the cell since it contains the material which determines the characteristics of the cell. It is therefore the guardian of its inheritance. In addition to this role the nucleus controls the growth and reproduction of the cell.

The cytoplasm is the working portion of the cell. Because it is living material it has many properties characteristic of life which include the ability to absorb food and by combining it with oxygen to derive the energy necessary for its activity. It is able to eliminate waste products through the membrane which surrounds the cell and depending on the function of a particular cell it may manufacture such a substance as a digestive enzyme or a hormone, and so forth.

If one analyses the cytoplasm of the cell one finds representative amounts of the basic constituents of the body. A major portion consists of water. There are lesser amounts of protein, fat and carbohydrates and traces of salts, hormones, vitamins and minerals. The need of the body cells for specific substances is what determines the basic requirements of the diet.

But there is more. The cytoplasm is not just a watery solution of the components described. It also contains a large number of tiny structures of various shapes and sizes each of which has its own part to play in the total activity of the cell. As one peers more deeply into the cell with such aids as the electron microscope one finds new details which demonstrate the complexity and the miracle that is life.

It must be realised that as soon as single cells began to clump together to form communities the ground was laid for modification of the function of the cells. Since it was not necessary for each cell to be able to fulfil all functions they began to change and to assume responsibilities for specific functions only. The result was that some cells took over the job of providing the basic structural support of the system. In the animal these became the bone cells. Other cells became responsible for the absorption of food or reproduction or one of the other roles. By so doing the individual cells lost their ability to be independent but became more efficient in their particular sphere of activity.

From this brief description of the cell it will be seen that the behaviour of the human body, its reaction to injury and to illness, is the summation of the activity and reactions of trillions and quadrillions of individual cells. It follows that if we are to learn about the mechanisms responsible for human diseases including cancer, we must continue and intensify our efforts to learn more and more about that tiny but powerful unit of life, the cell.

FOREIGN NEWS

Survey on Cancer in the U.S.A.

The most extensive medical survey ever undertaken in the United States will be commenced this year by the American Cancer Society, in an attempt to throw more light on the causes of cancer.

The survey will last for six years. It will cover more than a million Americans, men and women, over 30 years of age. Some 50,000 volunteers, all of whom have received special instruction from specialists, will conduct the survey in 20 states.

Dr. Cuyler Hammond, the Society's director of statistical research, is in charge of the survey. One of the important objectives will be to determine whether the conditions of life, as well as the social and economic milieu of the individual, have any relation to the development of cancer.

Two questionnaires, a blue one for men and a white one for women, will be sent to 500,000 families. The volunteers will "follow-up" the families during the six years the survey is to last, compiling a supplementary questionnaire every two years. The confidential information will be forwarded to the Society's headquarters in New York, where the data will be processed.

Teachers' Conference in Manchester

A two-day teachers' conference on cancer education, to discuss "the problem of evolving ways of making cancer ordinary to the generations to come", was held in Manchester earlier this year. Arranged by the Manchester Committee on Cancer, it was attended by 51 delegates from grammar, high, technical high, secondary modern and independent schools. Lecturers and discussion group leaders at the conference included the Director and consultants on the staff of the Christie Hospital and Holt

Radium Institute, (one of the country's largest cancer treatment centres), and representatives of schools' medical officers, general practitioners and the teaching profession.

The Committee's Annual Report for 1958/59 hails the conference as "an unqualified success". Prepared to have to work hard to convince teachers of the need for some form of cancer education, the organisers found instead "an instant and unanimous acceptance" of that need.

In his closing address the Chairman, Dr. Ralston Paterson, summed up the results of the conference. "The Manchester Committee", he said, "arranged this conference purely as an experiment to see what you, a body of teachers from schools of many different kinds, would think of the idea of cancer education for older children. We wanted to find out if you would be opposed to or in favour of some form of instruction that would introduce children to facts which will in later life help them to think more clearly about cancer. You have given us a most emphatic "yes", and the big surprise to us has been that the conference has so largely concerned itself with how soon and how best to start instruction, rather than whether it should be given at all."
