

Editorial

75 years to the Institute of Oncology, Vilnius University



Council of the Institute of Oncology, Vilnius University

Our Institute can be proud of the fact that thanks to the efforts of the professors of the Medical Faculty of Stephen Bathory University, oncology in Lithuania was started to be developed as an independent discipline. On April 23, 1931, on the initiative of Prof. Kazimieras Pelčaras, Head of the General and Experimental Pathology Department of Vilnius University, a constituent meeting of the Committee against Cancer was convened. In half a year after the constituent meeting, on December 1, 1931, the hospital and institute (Polocko 6) started operating. Here scientific work was carried out and, what is most important, problems of biological cancer formation were dealt with. In 1934, by a decision of the Committee against Cancer, the Institute was renamed into Vilnius Anti-Cancer Research Clinical Institute. It functioned until 1941.

In 1945, the science of oncology started to be revived at the Institute of Experimental Medicine and Oncology of the Lithuanian Academy of Sciences. The organizer of this Institute was Vytautas Girdzijauskas, professor of the Faculty of Medicine of Vilnius University. The oncology sector was headed by Michailas Kučarovas. After his death in 1957, work in the oncology sector was continued by Assoc. Prof. Jonas Rimšelis, physicians Viktoras Kutorga and Stasys Kebłas. Physicians Elena Moncevičiūtė, Albertas Telyčėnas, Algirdas Jackevičius,

and Liudvika Laima Gričiūtė were post-graduate students of this Institute.

In 1957, an independent Oncological Research Institute was founded on the basis of the National Oncological Dispensary in Lithuania. Albertas Telyčėnas was elected Director of the Institute with the staff of 61 research fellows, including 10 doctors of medicine and 37 candidates of science in medicine, biology and chemistry. The staff of the Institute totalled 128 employees. Research was conducted on the incidence of tumours in the Republic, and the causes of their incidence; synthesis of new anti-tumour preparations was carried out, as well as their experimental and clinical investigation. Active treatment activities were started in the main practical oncology establishment, the National Oncology Dispensary: operating rooms were installed, complicated operations were performed, chemotherapy with embichin and therapy with radioactive radium were applied. Somewhat later, close-focus roentgenotherapy with a reconstructed roentgenodiagnostic apparatus was applied. Treatment with a Gut-Co60 telegamma apparatus was started to be applied.

After the reorganization of both the Institute and the National Oncological Dispensary into one scientific and practical oncological institution in 1975, it has earned international



International Events

recognition for its work in cancer medicament therapy, especially in the field of medical electro-radiography. Lofenal, a medicine created at the Institute, was introduced into the clinical practice.

The year 1979 was of special importance to the oncologists as the construction of the Oncological Clinic was completed in Santariškės.

In 1982, Prof. Liudvika Laima Gričiūtė took over the guidance of the Oncological Research Institute. The Clinic of the Institute acquired an independent status and was titled the Clinic of the Oncological Research Institute. The Clinic provided treatment to patients with malignant tumours (except brain and eye tumours and leukaemia).

In 1982–1990, the Oncological Research Institute focused on the following important trends:

- research of the incidence of tumours in Lithuania and the causes of their emergence, seeking to substantiate the preventive measures;
- synthesis of new antitumour and anticarcinogenic preparations and their experimental and clinical trials;
- improvement of diagnostics and complex treatment.

Scientists took an active part in complex programmes, dedicated to the investigation of the incidence of malignant tumours of various localizations in the population of different industrial regions of Lithuania as well as that of environmental pollution with chemical carcinogens. A map was compiled on the sources of carcinogenic substances in Lithuania.

The Cancer Registry at the Oncological Research Institute was set up in 1984, although malignant tumours in Lithuania were started to be registered quite long ago. In 1990, with the

aim to improve the management structure of the oncological service, the Oncological Research Institute and the Clinic were reorganized into the Lithuanian Oncology Centre, which in 1995 was granted the status of the state scientific institution. The main functions of the Centre cover scientific research activities, diagnostics and treatment of malignant tumours, record of patients with malignant tumours, training of students and residents as well as improvement of skills of medical doctors.

The Hospital Register was established and it is aimed at accumulating data on all the inpatients. The data made it possible to analyze the activity of the institution more exhaustively – to conduct statistical and economic analysis.

On March 12, 2002, by the Resolution of the Government of the Republic of Lithuania, the state scientific institution Lithuanian Oncology Centre was restructured into the Institute of Oncology of Vilnius University. The reorganization was the official recognition of the institution, in which scientific work, training and treatment are being carried out.

Research at the Institute is conducted along the trends, approved by the resolutions of the Government of the Republic of Lithuania:

- development of tumour prevention, based on epidemiological, experimental, molecular biology and clinical investigations;
- improvement of new technologies, early diagnostics and combined treatment means and methods;
- creation of the system ensuring the life quality of oncological patients.

It is possible to reduce morbidity due to malignant tumours of some localization and to forecast their emergence only after



Distinguished Guests

the implementation of the preventive measures. No doubt, the epidemiological investigations are specific in Lithuania and are closely related with the future practical medicine – cancer prevention. Such works are of importance for the country where “hot points” are studied and for the common welfare of the world so that no “white spots” would be left on the world map of cancer incidence.

More exhaustive examination of molecular markers indicating the prediction of the disease and response to treatment would help individualize the treatment and would enable to achieve better treatment results by applying standard treatment methods. With the purpose of the development of molecular biology investigations, Cancer Biology Laboratory was established at the Institute of Oncology, Vilnius University, and a basis for a

broader application of molecular biology methods in oncology is being created. Implementation of new methods, based on fundamental exact and natural sciences (especially physics), into the clinic of oncology confirmed the necessity of creating a new laboratory, i.e. that of biomedical physics.

Concerning the second trend, research is intended for the improvement of early diagnostics of tumours, reduction of mortality rate due to malignant tumours, extension of life duration of oncological patients as well as improvement of their life quality.

New clinical methods have been implemented into clinical practice: contact radial tumour therapy with Californium-252 neutrons, photodynamic tumour therapy, new combined treatment programmes are under study. It is worth mentioning that, in 2002, in collaboration with Vilnius University and other scien-



Visiting Belgian Royal Family Escort – Chancellors and Professors of the Belgian Universities



Moments of 75th Institute's Anniversary

tific institutions, our Institute was awarded the State Science Prize for the cycle of works Photosensitized Tumour Therapy: Physical, Biochemical, Preclinical and Clinical Studies.

The staff of the Institute takes part in the transnational EURAQA and EROPAQ (radiotherapy quality assurance) programmes, PSO, TATENA and International Cancer Research Centre supported projects.

The purpose of the works covering the third trend in the research activity of the Institute, related to the life quality of oncological patients, is to evaluate changes in life quality, to identify their predetermining factors and, on their basis, to create a diagram of life quality assurance. A very important task of the Institute must also be mentioned, i.e. specialized health care services for the staff of oncological institutions.

New methods of research and treatment have been developed, improved and implemented at the Clinic of the Institute: videothoracoscopic resection surgery; laparoscopic surgery in abdominal surgery, urology and gynaecology; single-stage thermoablation of tumours in both kidneys; new brachotherapy methods; radial therapy of non-standard fractioning prostate cancer; biological therapy methods; transrectal ultrasound examination et al. The Institute participates in random selection health check programmes for cervical pathology, breast cancer and prostate cancer early diagnostics. A new, already third, mammograph and a modern multi-layered (32 sections) computer tomograph were acquired, operating theatres are renovated, day surgery inpatient services were started to be provided.

With the aim of improving the quality of scientific work and productiveness, treatment efficiency and financing, the following units were set up: Scientific Research Centre with new laborato-

ries for the development of molecular biology investigations and consideration of nanomedicine opportunities; Cancer Control and Prevention Centre, Strategic Activity Centre, and EU Project Coordination and Support Centre. The individual scientific work conducted at the Institute was joined into 4 programmes:

- epidemiological, laboratory and experimental research of the connection between the organism and tumour;
- improvement in the malignant tumour diagnosis;
- individualization of the treatment of oncological patients;
- creation of the system for ensuring the life quality of oncological patients.

The staff of the Institute takes an active part in the pedagogical process as well: they deliver lectures for the students and MSc students of the Faculty of Medicine of Vilnius University. At the Institute, the BSc MSc work is being carried out by the students of the Faculties of Medicine, Natural Sciences, Physics and Chemistry. Specialists in radiotherapy and biochemical therapy are being trained.

Doctoral studies in the field of Biomedicine, in the trend of Medicine (B 07), the branch of Cytology, Oncology and Cancerology, are being carried out. Their purpose is to train doctors in the above branch, possessing theoretical knowledge not only in oncology, but also in the related branches (molecular biology, genetics, and medical physics) and being able to conduct present-day level scientific research work as well as to adapt the results obtained in the treatment of malignant tumours.

Professional qualification training courses are organized for medical doctors of various specialities. The Institute also organizes or participates in preparing international conferences and seminars, closely cooperates with the Lithuanian and foreign

scientific institutions and is a true member of the Organization of European Cancer Institutes (OECI).

The scientists of the Institute deliver reports in Lithuania and abroad; they are members of the editorial board and / or council of the scientific journals and take part in the committees for defending dissertations. The Institute of Oncology of Vilnius University has become successfully involved in the projects supported by the EU Structural Funds. It has become supervisor of the journal *Acta medica Lituanica*.

The priorities of current activities cover a multidisciplinary approach to the solution of oncological problems, a close link between fundamental and clinical investigations, orientation of scientific research toward a patient, integrity of oncological science, training and practice. Each oncological patient is entitled to receive a qualitative, qualified and full-value treatment, based on the most innovative scientific research, in the specialized treatment institutions.

The present-day Institute of Oncology of Vilnius University is continuing the work of the previous scientific institutions in the field of oncology. The 21st century should become the golden age of biomedicine. Achievements in biotechnology, nanomedicine, genomics, and proteomics as well as “information revolution” condition fundamental changes in the development of biomedical science, on the other hand, those changes open new opportunities and simultaneously set new tasks for the development of oncology. The oncologists, having rallied into the International Organization against Cancer, spare no efforts for the control of this disease: their main vision being the world where cancer is eliminated as a threat to the future generations. This vision is striven to be achieved in our country as well.

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