THE LEGACY OF A HUNGARIAN NOBEL PRIZE LAUREATE IN THE SERVICE OF LIFE AND MEDICINE
For more than 50 years our company and its legal predecessor have been manufacturing radioactive isotope products, which are exported to 80 countries all over the world. With the experience and professional knowledge gained over the years, we have become Hungary’s foremost research, development and manufacturing center in the field of radioisotope applications. Most – approximately 80% – of our turnover comes from export sales.

FOLLOWER OF THE FATHER OF NUCLEAR MEDICINE

We owe the basics to chemist György Hevesy, who was awarded the Nobel Prize in Chemistry in 1943 for his work on the use of radioactive isotopes as tracers. He has done much to clarify the concept of isotopes, and was a pioneer in applying isotopes in biological, metallurgical and botanical research.

LEADING ROLE IN SOCIAL RESPONSIBILITY

Aware of the responsibility that comes with our role as a leader, our company pays close attention to safety during the manufacturing, storage and transportation of our products. We are committed to minimizing environmental impact and to extending our corporate social responsibility to our business relations as well. We prevent the radioactive contamination of the environment using a multi-level security system. We also place a great deal of emphasis on social education and scientific dissemination.

Building on our staff members’ high-level, specialized knowledge and on their competency and commitment our company is able to harmonize the sometimes contradictory conditions of pharmaceuticals and radioisotope production.

Our company is ISO 9001, ISO 14001, ISO 13485 and GMP certified.

SOCIAL RESPONSIBILITY IS IN OUR FOCUS

Mihály Lakatos, CEO
Nuclear medicine is currently in the limelight all over the world. It represents a new opportunity to examine the human body and its pathological processes using radioactive materials, as well as to treat and improve the quality of life of patients. Our company is dedicated promoting and encouraging the use of radioactive isotopes in medical activities (diagnostic, therapeutic and research). The new methods of nuclear medicine have become indispensable in modern healthcare.

Our Radiopharmaceutical Business Unit operates isotope laboratories authorized for high-activity materials. We have several decades of experience in the field of manufacturing and developing radiopharmaceuticals and investigational products for clinical trials.

RADIOACTIVE ISOTOPES FOR A HEALTHIER FUTURE

Radionuclides from neutron irradiation are produced for diagnostic and therapeutic products and radiochemicals. $^{125}$I radioisotope is used in life sciences and in vitro diagnostic products.

Our $^{99m}$Tc radioisotope labelled medicines are suitable for the scintigraphy examination of renal, bone and hepatobiliary systems.

The DMSA kit is an excellent tool in static renal imaging and in determining the functional mass of kidneys. Glomerular renal function is studied with the DTPA kit, while the dynamics of tubular excretion are studied with an EC kit. DTPA preparation can also be used in liquor circulation studies.

Our MDP preparation is a traditional bone scintigraphy agent, indispensable in the imaging diagnostics of bone metastases.

The FYTON kit forms colloid under in vivo conditions, making it suitable for liver scintigraphy, monitoring the treatment of liver diseases and detecting internal bleeding.

The TECHIDA kit is used for determining the excretion function of liver cells and evaluating the hepatobiliary transport processes.

The PYRON kit is for labelling red blood cells for blood-pool or spleen scintigraphy.

The MULTIBONE (EDTMP) kit labelled with radionuclides $^{90}$Y or $^{153}$Sm is developed for the palliative therapy of painful bone metastases.

The $^{166}$Ho isotope labelled suspension injection has an excellent therapeutic effect in the treatment of chronic inflammatory joint disorders.

$^{131}$I sodium-iodide solution is provided as an active pharmaceutical ingredient, and is also available as a ThyroTop capsule for the treatment of thyroid tissues.

Our $^{131}$I-MIBG injections are provided both for imaging and for the therapeutic treatment of neuroendocrine tumors.
The Immunoassay Business Unit produces a wide range of sensitive and reliable immunoassays in RIA format for diagnostic and research use and is committed to meeting customers’ needs and providing high-quality products.

With more than 30 years of development experience in immunoassays for endocrinology, oncology, autoimmunity and other fields, our company is a partner of choice for diagnostic medical device and research kits for specialized testing.

Our assays are compatible and show good correlation with Immunotech, CIS, DPC, Diasorin and Fujirebio Radioimmunoassays.

We continue to invest in RIA and offer a full line of IVD specialty parameters and a broad panel of research kits for medical, pharmaceutical and industry applications.

**THE USE OF IMMUNOASSAY PRODUCTS**

Due to our quality assurance and high-level professional knowledge, our products are increasingly successful all over the world. The products are characterized by an outstanding sensitivity, accuracy and reproducibility. During our development and manufacturing processes we always strive to ensure that our products are quick and easy to use. As a result the professional knowledge and competence of our staff is matched with comfort elements essential to the practical application of our products: end user reagent forms, long-term stability, short incubation and treatment period, high sample capacity, economic standardization, minimal labor intensity and off-the-shelf solutions.

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CARBON-14 LABELLING

During decades of activity in this field, the syntheses of several hundreds of organic compounds labelled with $^{14}$C or $^3$H radio-isotopes have been developed for pharmacological, metabolism (ADME) or e-fate studies of drugs, agrochemicals (pesticides) and other bioactive compounds.

We offer the widest selection of $^{14}$C labelled pesticides which have an important role in the registration of these agrochemicals.

A lot of $^{14}$C labelled substances have also been produced on behalf of other laboratories, some of them on a large scale as well.

Custom radiosynthesis service is available resulting in the labelled compounds according to the specifications requested by the customers. A detailed quality certificate stating the purity, the specific activity and the total activity is issued.

In our new clean room facility we can perform $^{14}$C radiosyntheses under GMP conditions as well.

TRITIUM LABELLING

The facility provides tritium labelling to customers whose NRC license, facilities or safety concerns limit the amount of tritium that may be handled in their laboratories. The labelling includes the incorporation of tritium into the target precursor, according to the customer’s request, the removal of catalyst and labile tritium from the crude product and the determination of total activity, specific activity and purity.

Radiochemical repurification service for $^{14}$C, $^3$H labelled compounds is also available.
We design, manufacture and service calibration irradiators, non-destructive devices and PLC-based control systems for industrial and research use, in keeping with customers’ individual needs. The gamma irradiation equipment used with $^{60}\text{Co}$ radioactive sources is made for industrial or laboratory usage.

We also manufacture containers, hot cells, storage boxes and whole body-counters needed for the safe and secure production and transport of radioactive materials. The Miniray dose rate measuring instrument for radiation protection produced and marketed by our company is basically suitable for measuring gamma and X-ray radiation. Our company is also engaged in manufacturing small and high activity $^{192}\text{Ir}$, $^{137}\text{Cs}$ and $^{60}\text{Co}$ radiation sources and their re-encapsulating them ($^{192}\text{Ir}$, $^{137}\text{Cs}$, $^{60}\text{Co}$, Ra/Be, Pu/Be, Am/Be, …). The flexibility of our technology enables us to maximally fulfill the customer demands and expectations.

OTHER ACTIVITIES OF THE BUSINESS UNIT

- Radioactive waste management: development of technological methods, preparation of feasibility studies and work plans, environmental impact studies, collection of radioactive waste and disused radioactive sources.

- Irradiation tests: irradiation of samples, morphology studies, quality analyses, examination of physical parameters.
Our company is dedicated to research and development for manufacturing radioactive isotopes and related products used mainly in healthcare, research, industry and agriculture.

We work with highly competent and committed staff members taking closely into account the safety of the environment for the long-term satisfaction of our customers and partners. With the development of our product and technologies, the aim is to ensure the most economical production and minimal environmental impact.

We provide research and development activities for other companies as well and are ready for international cooperation. Following the successful completion of these projects, we can also manufacture the developed product within the framework of a contract manufacturing agreement.

We undertake the transport of radioactive materials and equipment containing radioactive materials for other companies as well in compliance with the relevant provisions of ADR, HAFA (Hungarian Atomic Energy Authority) and IATA.

RELIABLE SUPPLIER (LOGISTICS)

Besides developing and manufacturing our products under special circumstances, we also deal with transporting these products. We offer our logistic activity as a complex service for our customers. Our staff members responsible for daily purchasing tasks also deliver the radioactive materials produced to our partners.

WITH MANY DECADES OF RESEARCH EXPERIENCE BEHIND US

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Besides the sales of our own products, we also handle the distribution of foreign companies’ products on the Hungarian market. Our partners receive complex services. We also seek to facilitate good relationships with the various authorities.

We aim to maintain our leading position in the domestic market and to expand our reputation as an internationally recognized company. Our products and services are available on the international market. Some of the materials and products needed for our own production are imported.

Building on our intellectual capital, experience, network and technological base we are able to fully meet the requirements of the international market. Our experienced staff members pay particular attention to meeting all the customer needs in the field of sales service, logistics and customs.

Judit Szende
Director of Sales and Purchase
Phone: +36-1-395-9081
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