SECTION OF RADIATION BIOLOGY

The Section of Radiation Biology was established in the early 70's. The purpose was to ensure a forum for the growing number of scientists who were interested in this complex branch of science. At its meetings reports and lectures both on basic phenomena of experimental radiation biology and the application of them for medical and industrial fields were given. At present the Section has close to 100 members including representatives from universities, research institutes, and government agencies. At present the main objective of this Section is to assist the specialists in various fields to keep abreast with new theories, experimental results, techniques which have relevance e.g. to oncoradiology, radiation technolgy, safety standards for radiation protection. Many of the members are also members of the European Society for Radiation Biology (ESRB). For years the Hungarian section has been and still is represented in the Council of the ESRB. From time to time members are invited by the International Atomic Energy Agency, too, to assist in various projects as experts. Over the years the interest has greatly broadened to the increasing use of ionizing radiation in medicine and industry including the nuclear power plant program of Hungary. The Hungarian radiobiologists usually give informative pictures on their scientific achievements at the biannual meetings of the Hungarian Biophysical Society. During the last couple of years the Section has focused its interest with collaboration of the Eötvös Loránd Physical Society Health Physics Section on the new recommendations of the International Commission on Radiological Protection (ICRP) as the new issues include fairly detailed biological information as well as sophisticated knowledge on health physics. For a better mutual understanding the joint meetings proved to be helpful. The following topics have been discussed in details: deterministic and stochastic effects of ionizing radiation, interaction of radiation with matter. DNA damage and repair, estimates of the probability of carcinogenic effects, hereditary and teratogenic effects.

Several members of our Section are members also of the Health Physics Section and through this also of the International Radiation Protection Association (IRPA).

Recently, among the contemporary topics of radiation biology the followings are in the interest of members and are or are to be discussed at Section meetings:

– low dose effects, the hormesis and adaptive response of cells,

– combined effects of ionizing radiation and chemicals, drugs, antiblastic compounds, environmental pollutants,
– new approaches in radiation cytogenetics,
– role of cytokines in development and therapy of radiation sickness,
– biological effects of non-ionizing radiations,
– biological indicators of radiation injuries,
– the predective assays in the individualization of radiation treatment of tumor-bearing patients. Concerning the latter a lecture was already given by Dr. J. Mircheva (IAEA) entitled "Modification of Radiation Response in Cancer Treatment" with special emphasis on new experimental and clinical approaches in 1993.

This is an example that beside the members and invited lecturers, foreign visitors are also invited to deliver lectures and to give seminars.

Former officers of the Section were Dr. T. Predmerszky as president and Dr. J. Gidáli as secretary. In 1992 the Section elected Professor G. J. Köteles (Deputy Director General of the „Frederic Joliot-Curie" National Research Institute for Radiobiology and Radiohygiene, Budapest) as president and Dr. L. G. Gazsó (Head of Department of Radiation Biology of the same Institute) as secretary. ESRB Council members: earlier Professor E. J. Hidvégi and at present Dr. L. G. Gazsó.

The Section is open for specialists from various fields either to become members or to participate at its meetings and in scientific work. For further information, please, contact Dr. L. G. Gazsó, in the „Frederic Joliot-Curie" National Research Institute for Radiobiology and Radiohygiene, 1221 Budapest, Anna u. 5. Hungary, Phone/Fax: (1) 226-5750.

LAJOS GAZSÓ – GYÖRGY KÖTELES
Secretary and President of the Section

SECTION OF MEDICAL PHYSICS

The first Hungarian cobalt teletherapy unit had been planned by Prof. Bozóky and it was installed in 1957 in the National Institute for Oncology. The great majority of the radiotherapy centres (using megavoltage therapy units) were built until 1974. Since that time, like in other countries, the cooperation of physicists and physicians in the radiation therapy was absolutely necessary.

The physicists working in the field of radiation therapy have established the Medical Physics Section of Hungarian Association for Biophysics in 1974 and elected Prof. Bozóky as their president. The Medical Physics Section is a member of the IOMP since 1975. The activity of the Section is limited mostly to radiation therapy, and engineers and a few physicists working in the field of diagnostic radiology and/or nuclear medicine are usually involved in the routine work with and in the maintenance of major items of equipments (e.g. CT, MR). They are members of other societies. In our country there is no university where medical physicists are educated. This may be understandable if the size of the country is considered, at least the postgraduate education should, however, be solved since without that the medical physics will never be recognized as an independent discipline as it is recognized in the countries of the Common Market. The so far neglected regular education is the most important step on this way. For this aim the first very important steps made in 1992 were the foundation of Hungarian IOMP Library in Budapest and the regular workshop organized with the assistance of the Clinical Science Foundation (London).

Up to now the Section has not organize an independent congress, its members used, however, to take part at the meetings organized by the Societies of Hungarian Oncologists or Radiologists. The scientific activity of the members of our Section in connected predominantly with brachytherapy, teletherapy, TL dosimetry, Q. A. of radiation therapy and radiation protection.

A very important result and success in medical physics was the introduction of computer aided treatment planning (1978). The implementation of this project was supported by the I. A. E. A. The dose distributions were calculated in the whole country by using the EXTDOS program (written by van de Geijn) on a central computer. The early (1970) version was updated in 1982 (version 1980).

The next step was the introduction of a PC based version of the above program. The original program was adapted for PC and the interactive graphical I/O routines were written by members of the Medical Physics Section. In this work medical phyicists of various centres were involved.

The Section is open for experts from other fields to become members and to cooperate in the scientific work. For detailed information do not hesitate to contact Dr. P. Zaránd (Uzsoki Hospital, Radiation Physics Dept. H-1145. Budapest, Uzsoki u. B29. Phone: (1) 251-2168.

PÁL ZARÁND
President of the Section

ULTRASOUND SECTION OF THE HUNGARIAN BIOPHYSICAL SOCIETY

In the framework of the Ultrasound Section of Medical Biology, the Hungarian Society of Biophysics was the first in Hungary to provide a forum twenty years ago for specialists interested in the use of ultrasound in the field of medicine and biology to exchange experiences and propagate the cause of ultrasound diagnosis in the country. Scientific meetings on the latest results and development in diagnostic ultrasound are held 2 or 3 times a year. The Ultrasound Section is a founding member of both the European Federation of Societies for Ultrasound in Medicine and Biology and the World Federation for Ultrasound in Medicine and Biology, thus it can facilitate international relationships and contacts for Hungarian specialists in sonography.

At the historical 7th World Congress in Washington, 1988, organized by the World Union and the American Institute of Ultrasound in Medicine, four members of the Hungarian Section were honoured with a Pioneer Award. The Hungarian Section organized the 1st Hungarian Symposium on Ultrasound in Medicine in 1985, attended by sonographers from all fields of diagnostic ultrasonography. Owing to the specialization in ultrasonography, the 2nd Hungarian Congress on Ultrasound in Medicine was organized in 1989 with the participation of the Hungarian Societies of Radiologists, Gastroenterologists and Cardiologists.

At the steering board of the European Federation of Societies for Ultrasound in Medicine and Biology, Hungary is represented by the secretary of the Hungarian Section and Hungary is to organize the European Congress to be held in 1996.

The tasks of the Section include organizing and supporting lectures and postgraduate training courses for groups and individuals, working out principles and directives in diagnostic ultrasonography and promoting the participation of Hungarian specialists at international congresses. More than 15 members of the Society from the different sections received a scientific degree. 7 books and 4 textbooks have been published by the members so far.

The members of the Committee of the Hungarian Ultrasound Section play an active role in the different medical societies and in the elaboration of a unified system of directives and principles in ultrasonography in the different fields of medicine.

Address:
Department of Obstetrics and Gynecology, Univ. Medical School, Debrecen.
H–4012 P.O.Box 37.

ZOLTÁN TÓTH
President of the Section

THE ACTIVITY OF MEMBRANE SECTION

There was a Biennial Meeting in 1983 when the members of the Society came to a decision to establish a Membrane Section the necessity of which was already obvious: more and more "membrane" lectures were taking place within the Society's programs. On the 12th Biennial Meeting, for instance, the lectures were delivered about the newest results of membrane-dynamic studies (L. Trón, J. Szöllősi, S. Damjanovich – Institute of Biophysics of the University of Medicine, Debrecen), plasma membrane as a radiosensitive target (G. J. Köteles – "Frédéric Joliot-Curie" National Research Institute for Radiobiology and Radiohygiene, Budapest); besides, many posters dealt with the aspects of structural and functional changes of membranes. The book "Membranes and membrane-related diseases" of co-authors G. Gárdos, I. Szász, B. Sarkadi was also published in 1983 by "Medicina" Publishers.

In the meantime, the measurements have shown that 73 members of the Society expressed their desire to join the Section. The establishing meeting was hold on 20th February 1984 in Budapest. For a president post, L. Keszthelyi was elected, S. Györgyi became a secretary; the following board members were elected: Á. Enyedi, L. Horváth, L. Kovács, G. J. Köteles, T. Lakatos, Z. Szőkefalvi Nagy. The new scientific forum began to work with enthusiasm. All structural changes of arteficial membranes as well as structural-functional alterations of biomembranes were explained according to the Singer-Nicolson's "fluid mosaic model" the influence of which was still new at that time.

On the establishing session already, two lectures followed by interesting discussion were delivered (L. Horváth – Institute of Biophysics of the Biological Research Center Szeged: „Significance of fluidity modulation on the temperature adaptation of plants"; G. J. Köteles et al. – "Frédéric Joliot-Curie" National Research Institute for Radiobiology and Radiohygiene: „Derangement of plasma membrane upon ionizing radiation"). At the same year the members of the Section participated in the 14th Membrane-Transport Conference (Sümeg) as well as in the scientific session organized together with the Membrane Group of the Hungarian Biochemical Society, and related to the induced membrane phenomena (L. Keszthelyi et al. – Institute of Biophysics of the Biological Research Center, Szeged: "Light-induced phenomena in bacterial purple membrane"; L. Trón – Institute of Biophysics of the University of Medicine, Debrecen: „Ligand-induced changes of cytoplasma membrane followed by fluorescent method"). Some members of the Section participated in the international „membrane school" (23.09.–02.10.1984, Varna).

The activity of Section shown at the year of its establishment was continued in the following period as well. The Section Board was regularly organizing scientific sessions and stimulating the members to participate in the similar programs of other societies. Thus, the members of the Section essentially contributed to every-year conferences on membrane transport (Sümeg) with their lectures, posters and by taking part in organization-realiza-

tion of these forums as well. Similar activity could be found during biennial meetings of the Hungarian Biophysical Society (13th Biennial Meeting: 3–5 July 1985, Debrecen; 14th Biennial Meeting: 2–4 July, 1987, Pécs). In the course of these meetings, such membrane topics were discussed as the mechanism of drug – red blood cell membrane interaction, membrane permeability, studies of charge transport of Na–K ATP-ase in model membrane, phase-transition, membrane movements during a photocycle, distribution of negative charges on the surfaces of various cell types, relationship between structure and function: changes of functional condition of lymphocyte membrane leading to alterations of surface topology; ionizing radiation induced regional changes of a plasma membrane. The membranologists of the Institute of Biophysics of the Semmelweis University of Medicine and of the Institute of Biophysics of the Biological Research Center participated with their lectures in every second-year seminars organized by the Group on Organic Condense Systems, Macromolecules of Eötvös Loránd Physical Society.

Although the biophysical topics dominated at the first years of the Society's activity, at the nineties the interest of researchers turned to other directions, too: regulation of Ca-pump, relationship between cell membranes and lymphokines, receptor and effects, neurochemical – and bile investigations, lipid peroxydation. The international experience and results accumulated in immunology – especially in the field of cytokines – also stimulated research activity concerning membranes. This trend – together with other topics – was reflected in lectures and posters presented at the 15th (3–5 July, 1989, Szeged) and the 16th (2–5 July, 1991, Budapest) Biennial Meetings.

After 5 years of the Seciton's existence, there was a session followed by the election of new board (11. 12. 1989, Budapest). The topic of scientific part of the agenda was rather striking: „From a conformon till a toy catapult" and covered the new achievements on the membrane energy transfer mechanisms (S. György – Institute of Biophysics of the Semmelweis University of Medicine: „Some sentences for the protection of title – and topic choice"; B. Sarkadi-National Institute of Haematology, Blood Tranfusion and Immunology: „The energetic relations of cell membrane ion-pump"; L. Keszthelyi – Institute of Biophysics of the Biological Research Center: „The bacterial rhodopsin as a model for biological pumps"). The new board was elected: the president – L. Horváth (Institute of Biophysics of the Biological Research Center), the secretary – T. Kubasova („Frédéric Joliot-Curie" National Research Institute for Radiobiology and Radiohygiene), members – Á. Enyedi (National Institute of Heamatology, Blood Transfusion and Immunology), L. Kovács (Institute of Physiology of the University of Medicine, Debrecen) Z. Szőkefalvi Nagy (Central Research Institute of Physics), F. Tölgyesi (Institute of Biophysics of the Semmelweis University of Medicine).

During the las 3 years, the Section organized 2 scientific sessions with 35–40 participants each. The active discussions after lectures showed that the topics were interesting and actual for several „neighbouring" disciplines. The other explanation for the success of programs was the personality of the invited lecturers. The first meeting was held on 04. 12. 1991 in Budapest (O. Csuka –

National Institute of Oncology: „The role of membrane receptors in the transmission of mitotic signal"; J. Timár – Ist Institute of Pathophysiology of the Semmelweis University of Medicine: „Peroxydative membrane injury in synapsis"; K. Blaskó – Institute of Biophysics of the Semmelweis University of Medicine: „Peptid-like substances as a model for membrane channels; G. Berencsi – National Institute of Hygiene: „Relationship between virus infection and cell membrane").

TAMARA KUBASOVA
Secretary of the Section

SECTION FOR PHOTOBIOLOGY

About 6 years ago a group of scientists and clinicians with interest in photobiology, photochemistry, photomedicine and spectroscopy decided to form the Hungarian Section of European Society for Photobiology. Hungarian Society for Photobiology (HSP) was created as a Section of the Hungarian Society for Biopysics and established in 1987 under the guidance of Prof. Györgyi Rontó, who is the officer in the Executive Committee of ESP. Her scientific activity and the results of Hungarian photobiology were recognized, when Prof. Rontó was elected to the Vice-President of Association International de Photobiologia (AIP) in the period 1988–1992. Since its inception HSP has received encouragement from the European scientific community. In 1989, the group had the opportunity to organize the third ESP meeting in Budapest. Our first National Representative was Dr. Tatjana Szitó. This position is tilled by Dr. Béla Böddi from 1991.

The Hungarian Society for Photobiology has about 30 members. Our members in the European Society for Photobiology have either associate status – paying fee in local currency to the National Representative – or full one – paying reduced fee in western currency to the Treasurer of ESP. – At the expense of fees paid to the National Representative, the HSP has possibility to support the participation of the members at international meetings.

In Hungary various research groups are involved in several subspecialties of photobiology. This review will give a short summary of their activities (with a few exception).

The *Department of Plant Physiology* of the *Eötvös Loránd University* (Budapest) is working on three main fields of plant photobiology. Protochlorophyllidechlorophyllide photoreduction in the process of chlorophyll biosynthesis in higher plants is studied in the laboratory of Dr. F. Láng and Dr. B. Böddi. Low temperature fluorescence emission spectra of dark-grown and illuminated plants are analyzed by computer aided methods. The effect of light flashes of different intensities are used to get a characterization of the photoenzyme protochlorophyllide- NADPH-oxidoreductase and the kinetics

of its activity. A model has been created combining the biophysical, biochemical and cellular aspects of this subject. Dr. É. Sárvári and Dr. P. Nyitrai are specifically interested in the structure and biogenesis of chlorophyll containing thylakoid membrane particles. The effect of different external (light) and internal (plant hormones and protein biosynthesis) factors are examined by this group. Research program on herbicide- and stress-effects on the photosynthetic apparatus is carried out by Dr. Z. Szigeti. Chlorophyll-a fluorescence induction is studied to determine the mode of action of stressors and photosynthetic herbicides. The pigment photodestruction and the inhibition of the photosynthetic electron transport cain are examined.

The *Institute of Biophysics of Semmelweis Medical University* (Budapest) directed by Prof. Gy. Rontó. She is working with her research group since the sixties in the field of UV radiation damages of chromosomal models: bacteriophages. The recently found ozone depletion and in consequence of this the increased UVB radiation in the biosphere underline the importance of their results. Based on these they (S. Gáspár, A. Bérces, P. Gróf, Z. Gugolya) worked out valuable methods for measuring the biologically effective doses. Bacteriophage T7 (in solution) and uracil crystalline thin layer biological sensors have been developed and used in outdoor measurements as well. These sensors are uniquely suitable for evaluation/prediction of health risk of UV-B radiation. Research program on the quantitative characterization of dark genotoxicity and photoreactivity of psoralen derivatives is another branch of the studies of UV damages in chromosome models. This activity is carried out by K. Tóth and G. Csik. The structural and functional changes and their connections have been studied on phage nucleoprotein complexes. The group of Dr. J. Fidy (A. Kaposi and L. Herényi) is interested in the structural studies on proteins based on the laser excited low temperature optical spectra of functional chromophores embedded in the protein matrix. This method is especially applicable for the study of hemo-proteins.

The Department of Oxidation Processes of the *Central Research Institute for Chemistry* of the Hungarian Academy of Sciences (Budapest) is involved photobiology-oriented program. Part of the research efforts of the department led by prof. D. Gál deals with photodynamic therapy. Work is directed towards the better understanding of the photochemistry of the process, especially the primary photochemical steps involving the excited photosensitizers and the active species formed during these interaction. The photochemical properties or protonated hematoporphyrin are investigated by Dr. G. Móger. ESR spectroscopy of animal tissue samples from PDT treated mice is carried out by Dr. T Shulyakovskaya and Dr. L. Sümegi. The study of formation and decay of singlet oxygen in PDT related system (S. El-Zemzam and Dr. T. Vidóczy) and the investigation of interaction of free radicals with excited sensitizers (Dr. A. Gedra, Dr. Zs. Kuti) are important contributions of this research field. This group has various techniques such as ESR spectrometry and high sensitivity fast photodiode detector for the direct measurement of the emission of singlet oxygen.

The major interest in the *Institute of Biophysics of József Attila University* (Szeged) is the study of primary photophysical and photochemical events of photosynthesis in single celled algae and bacteria. Light induces electron and proton transfer, which generates a transmembrane proton gradient and, ultimately, ATP. This complex system is studied by rapid kinetic optical, biophysical and biochemical techniques. Prof. L. Szalay, Dr. P. Maróti and G. Laczkó are seek a description of the interaciton between the reaction center proteins and quinines and the role of the membrane in the electron and proton transfer reactions. A mechanism has been proposed for the coupling of electron and proton transfer and for the action of commercially important herbicides. The observed kinetics and stoichiometry of flashinduced proton binding depend on the conformational changes of the protein by controlling the degree of exposure of protonable amino acid side groups to the water phase.

An important department is headed by Professor S. Damjanovich at the *University Medical School of Debrecen.* They use fluorescence resonance energy transfer measurement as an excellent tool for determining distance relationships, protein interactions and supramolecular structure on cell surfaces.

GYÖRGYI RONTÓ
President of the Section

THE INTRODUCTION OF AGRO- AND FOOD-PHYSICAL SECTION

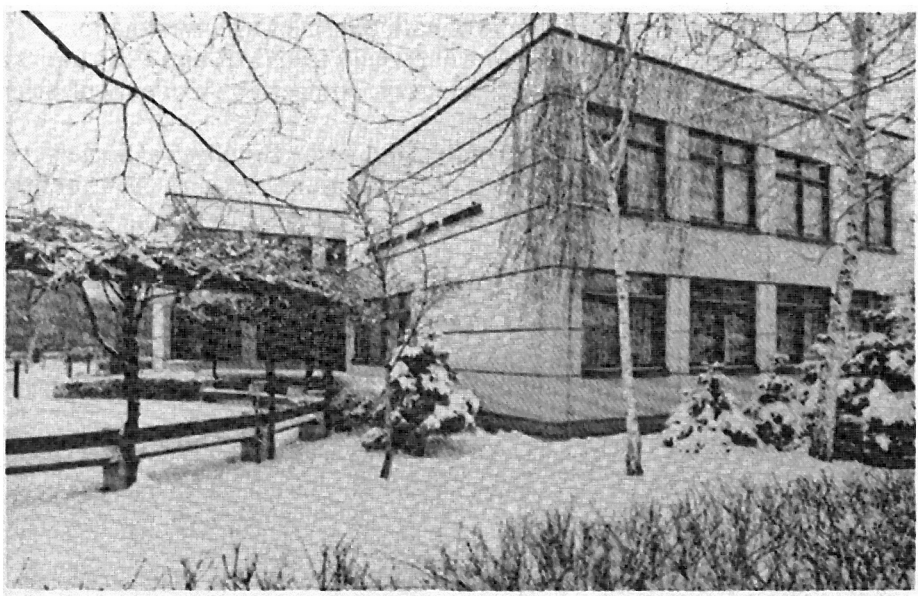
Between July 3–5, 1985, at the XIIIth Itinerary Meeting of the Hungarian Biophysical Society, national research workers presented 25 posters in section. The possibilities for the application of biophysical methods in agriculture. The idea was brought up during this Meeting that, in the frame of the Society, a Section dealing with agro- and food physics should work in the future. At the meeting of April 21, 1987, the Presidium of the Society decided in favour of the formation of this section, in order to take the responsibility in the field of research, for the studies of agricultural, food-industrial and biophysical topics and, in the field of edication, for the support of biophysics teaching in agricultural and food-physical university edication.

According to these aims, the Section was formed with about 40 members in September 25, 1987. It should be mentioned that the Section made its working plans in close co-operation with the Agrophysical Working Committee of the Academy Committee in Debrecen, which was formed in 1981, and was undertaking the co-ordination mission of national agrophysical investigations.

The main intentions of our Section are as follows:

– it is desirable to know other's works, and we organize two meetings every year (with lectures and round-table discussions);

– it is also important to follow the working plans of other Sections and to take part in their programs concerning our Section.



College of the University of Horticulture and Food Industry, Szeged

We usually have one-day meetings at different institutions such as:

- about the work of Agricultural Research Centre in Karcag;
- the position of food-physical research, the application of different physical methods (PIXE, ESR, TL, photoacustics and NIR technique);
- the position of national environment protection and environment analytical problems, at the Food-Industrial Forum in Budapest;
- about the work of Agricultural Technical Institute in Gödöllő.

We have also taken part in organizing meetings on special topics:

- Radiation technology in food economy (1987);
- Radiation technology in food economy and agriculture (1991)

The symposium materials have been presented in extra issues of J. Food Physics, published at the University of Horticulture and Food Industry since 1988. These publications are usually edited by the members of the particular Section, under the auspices of the Hungarian Biophysical Society. The Journal comes out twice a year in Hungarian with English abstracts, and from the two parts one English issue is also punlished every year.

Realizing the role of biophysics in agriculture and food industry, on the basis of national summing-up, the Food-Industrial Forum has been organized, which gives oppurtunity to experts in different fields of food science and food industry to get information on the position of national food physics. The Forum enables us to know research/developing activities, intentions and problems, furthermore to form new co-operation connections.

We have surveyed the set of instruments in food science and food industry. It was decided at the statutory meeting in October 1991 that according to the special research fields, thematic meetings would be organized every year. The following meeting was at the Development and Quality Testing Institute of Refrigeration Industry, with the topic of national rheology investigations.

The next Forum Meeting (1993) will be held for NMR and ESR topics at the Central Research Institute for Chemistry, Hungarian Academy of Sciences.

Our Section, under the auspices of the Hungarian Biophysical Society, will organize the first national conference of international level in 1994, entitled International Conference in Food Physics.

JÓZSEF KISPÉTER
Vice-President of the Section

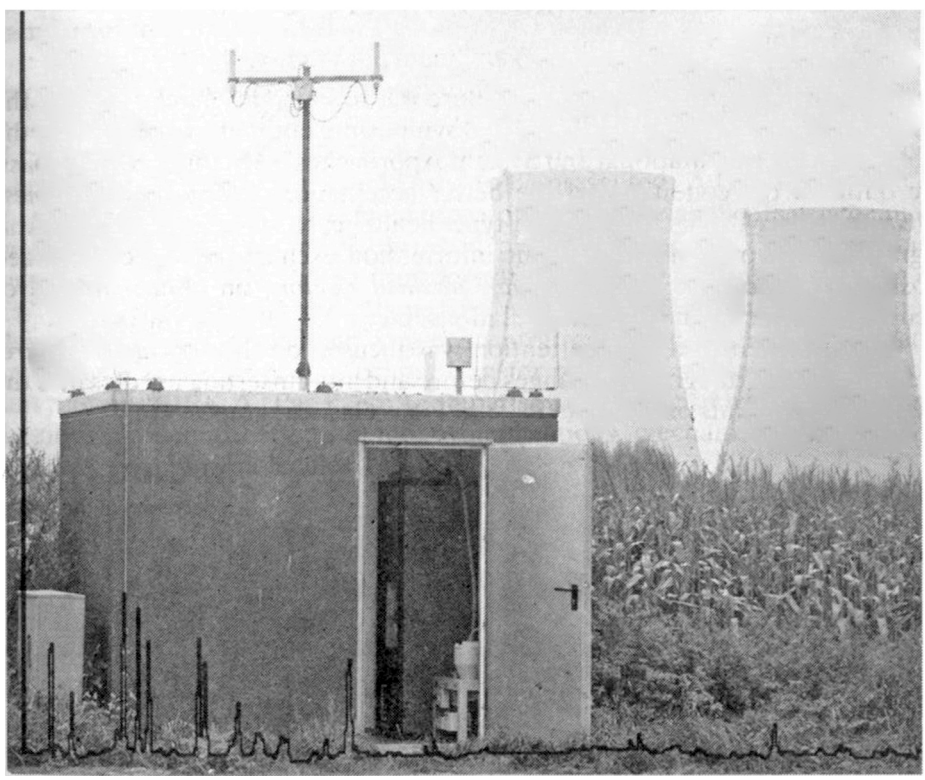
RADIOECOLOGICAL SECTION

The Radioecological Section was founded in October 1992 by nearly 30 members. Thus, the Section is the newest one established within the Hungarian Society of Biophysics. The main objective of the Section is to promote information exchange among the specialist dealing with the use of radionuclides and their effects on the environment. The members of the Section as well as the elected presidium are interested in the fields of ecology, geography, agriculture, radiation protection, radiochemistry, radiobiology and they are involved mainly in interdisciplinary research, applications and teaching.

One of the main aims of the Section is to decrease the gap between the experts of the „greens" and of the „atomic-lobby". The members wish to organize informal meetings on the topics of various energy-sources, effects of radiation etc. in cooperation with other societies.

The first year program is focused mainly on organizing meetings in the main institutes involved in radioecology. The first meeting was held in the Academic Research Institute for Soil Science and Agricultural Chemistry, Budapest.

The Section has a close connection to the International Union of



Radioecologists (IUR), this way it is to take part as cooperation partner to the National Research Institute for Radiobiology and Radiohygiene in organizing an IUR Summer School on „Radioecolgy and Environmental Monitoring in Normal and Accidental Situations". The Summer School is to be arranged from 26. July to 7. August, 1993, with altogether 25 participants, mainly from Europe.

The head of the Section is B. Kanyár, the secretary is P. Szerbin – both from the Natl. Res. Inst. Radiobiol. Radiohyg., Budapest – and the other members of the presidium are: É. Beleznay (Res. Inst. of Atomic Energy, Budapest), Cs. Béres (Kossuth L. Univ. Science, Debrecen), J. Dombóvári (Res. Inst. of Irrigation, Szentes), T. Németh (Res. Inst. Soil Sci. and Agricult. Chem., Budapest), F. Schweitzer (Res. Inst. of Geography, Budapest), S. A. Szabó (Univ. of Horticult. and Food Industry, Budapest) and S. Tarján (Natl. Inst. of Food Control, Budapest).

PÁVEL SZERBIN
Secretary of the Section

WORKING GROUP ON ACUPUNCTURE

The Working Group on Acupuncture was founded in March, 1984. In the next year we organized an international symposium entitled „Workshop on the Biophysical, Computational and System Approaches". On this academic basis we outlined the conditions of the better acceptance of *Traditional Chinese Medicine* (TCM) in our Western-type health care. Our contribution was significant not only in the scientific information exchange, but we organized *postgraduate courses for Hungarian medical doctors* on clinical topics of acupuncture such as needle manipulations, etc.

In the recent years our attention was focused on the *plantacupuncture,* studying the thermographic changes before and after inserting needles into the hyporesistive points of some plants, e.g. Ficus elastica, grapes, etc.

AJÁNDOK EŐRY
Secretary of the Group

BIOELECTROCHEMICAL GROUP

The formation of one of the youngest groups of our Society in 1985 was motivated mostly by the rapid development of the bioelectrochemical research in Hungary and the expansion of our international connections in that field, but the visit of the president of the International Bioelectrochemical Society (BFS) of that time, prof. G. Milazzo also supported the organization. (Tn 1988 Prof. Milazzo was elected the honorary member of the Hungarian Biophysical Society.)

The first great trial of the new group was, in 1987, the organization of the 9th International Symposium of Bioelectrochemistry and Bioenergetics in Szeged, Hungary. The main topics of the conference were: electrochemistry of biologically important molecules, structure and function of membrane systems, bioelectrochemistry of the nervous system, applied bioelectrochemistry and the connection between membrano bioelectrochemistry and the long-range effect of electromagnetic fields, while the last day was devoted to the session of the Bioelectromagnetic Society where the problems of the effect of magnetic field on the biological systems was discussed.

As an appreciation of the organization of a succesful conference and of his results in the bioelectrochemical research Prof. Lajos Keszthelyi, the president of the Bioelekctrochemical Section and of the Symposium was elected as the member of the BES Council in 1988.

A regular local forum of the members of the Bioelectrochemical Group is the annual meeting on „Membrane Structure and Function" (Sümeg, Hungary), organized by the membrane sections of the Hungarian Biochemical, Biological, Physiological and Biophysical Societies, including our group too, where the new results of the field used to be presented. A typical program of such a meeting represents the maln topics of the Hungarian bioelectrochemical research: ion transport mechanisms in plants, transport ATPases in plant membranes, carrier mediated transport of divalent metal ions, regulation of Ca^{++} -pump in plasma membrane, redox activity of plasma membranes, changes in the intracellular ion concentration during neurotransmission processes, the mechanism of charge transfer processes of biologically important proteins (BRs, ATPases, etc.) comparison of the transport behaviours and the physico-chemical effects of monovalent cations, mechanisms of the action of channel forming molecules, etc.

SÁNDOR GYÖRGYI
Secretary of the Group