

UNDERSTANDING THE HUNGARIAN ACADEMY OF SCIENCES: A GUIDE

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# CONTENTS

Ferenc Glatz: Introduction	7
Sándor Kónya: A Brief History of the Hungarian Academy	
of Sciences (1825–2002)	10
First decades (1825–1867)	10
After the Compromise (1867–1949)	13
The Academy under the communist system (1949–1988)	14
The transition (1988–1996)	15
The Academy in a new democracy (1996–2002)	16
ELECTED CHIEF OFFICERS OF THE HUNGARIAN ACADEMY OF SCIENCES	18
Membership of the Hungarian Academy of Sciences	19
I. Section of Linguistics and Literary Scholarship	19
II. Section of Philosophy and History	21
III. Section of Mathematics	23
IV. Section of Agricultural Sciences	26
V. Section of Medical Sciences	28
VI. Section of Technical Sciences	30
VII. Section of Chemical Sciences	33
VIII. Section of Biological Sciences	36
IX. Section of Economics and Law	39
X. Section of Earth Sciences	41
XI. Section of Physical Sciences	43
THE ORGANIZATION AND OPERATION OF THE ACADEMY	46
The General Assembly	47
The Presidium of the Academy	48
The Governing Board	49
Scientific Sections	49
Regional Committees	50
Széchenyi Academy of Letters and Arts	50
The Secretariat of the Hungarian Academy of Sciences	51
STRATEGIC RESEARCHES AT THE HUNGARIAN ACADEMY OF SCIENCES	52
The Academy's Network of Research Institutes	57
Institutes for natural sciences	57
Institutes for social sciences and the humanities	63
ACADEMY-SUPPORTED RESEARCH GROUPS AFFILIATED WITH UNIVERSITIES	
AND OTHER INSTITUTIONS	68
OTHER INSTITUTIONS OF THE HUNGARIAN ACADEMY OF SCIENCES	75
OFFICIAL PUBLICATIONS OF THE HUNGARIAN ACADEMY OF SCIENCES	77

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# INTRODUCTION

The Hungarian Academy of Sciences was founded not by imperial edict but by the will of 19th-century patriots. Thus it has been rightly regarded as a national institution throughout its 175-year history. In accordance with traditions, the Academy must continue to play an active part in the life of the state and the nation. The Hungarian Academy of Sciences is unique among European scientific civil organisations insofar as: it is an organisation of national meritocracy and the public body of Hungarian researchers with academic qualification. Presently there are more than 9600 public body members who participate in the work of the more than one hundred special committees maintained by the Academy's scientific sections.

The Hungarian Academy of Sciences is the organisation of a Hungarian-speaking elite of researchers. Similarly to the Hungarian academic qualification system, it is a two-level organisation. Researchers who have received their university qualification, or Ph.D., commonly recognised in the world, occupy the first level. The second level consists of those who meet the requirements of the Academy's own qualification system. They are the Doctors of the Academy and Academy members, or academicians, elected from among them. This qualification system requires that researchers with a Ph.D. who seek to obtain the title of Doctor of the Academy write a scientific dissertation. The respective sections of the Academy prepare a report on the candidates' previous research activity, appoint opponents to give an opinion of the dissertation, and give the candidate the opportunity to defend the dissertation in an open debate. At the end, the candidate may receive the Doctor of the Academy degree. There are about 2200 people with this degree today. The academicians then select the new members of the Academy, or academicians, from among the Doctors of the Academy. At first, members are granted corresponding membership, then,

based on subsequent scientific achievement, they become ordinary members. The law stipulates that the Academy have 200 members under 70 years of age, but those over 70 also retain full membership. Accordingly, the corps of academicians numbers 304 members today. Doctors and members of the Academy receive regular financial support guaranteed by the Hungarian state.

The Hungarian Academy of Sciences is a civil organisation of meritocracy. Similarly to most civil organisations, the Academy, too, has its own assets. It was mostly self-supporting up to the post-war inflation in 1922. Between 1922 and 1949, it relied partly on its own resources and partly on state subsidy. In 1949, its assets were nationalised, and only a fraction was returned after 1990. Today, it is maintained mostly by state subsidy, while the income from its own activities and entrepreneurial activities linked to research, as well as fees and grants acquired from external sources, constitutes 22–25% of its budget.

The basis of operation of the Academy as a civil organisation is the corporate spirit. Beside the President and the Secretary-General, the internal organisational reform assigns a greater role to the various leading organs, the Governing Board and the Presidium, in leadership.

Publicity is a fundamental requirement in the operation of a civil organisation. The newsmagazine Akadémia, which provides information on Academy events and plans, was launched with this in mind in 1997. After a seven-year interruption, the Almanac was revised in December 1997. The Academy's Yearbook will document annual events. In addition to these, the Academy Bulletin, the official publication containing the Presidium's standpoints, the President's and Secretary-General's decisions, will continue to appear as well.

We see the Hungarian Academy of Sciences as serving a threefold function in Hungarian scientific and public life in the coming decades, namely: - a scientific workshop

- the nation's counsel

- a public body representing the professional interests of researchers.

The Hungarian Academy of Sciences is, by tradition, the forum of debate of the Hungarian scientific research elite. Its sections organise scientific debates and conferences as well as inaugural lectures for new members. (Both corresponding and ordinary members must hold inaugural lectures at a public meeting.) In the spirit of this work, in 1997, the Academy renewed its lecture series commemorating deceased members, and, at the same time, reviewing scientific heritage. It introduced lectures by young researchers before a panel of academicians. Furthermore, the Academy regularly hosts interdisciplinary round-table discussions and conferences, the aim of which is to present the latest scientific achievements of public body members, to set forth questions and topics that may be of public interest and induce debate. Since 1998, it has published various series containing the lectures delivered at these forums, thus the inaugural lectures of Academy members, the annually delivered commemorative speeches and the material of the reading sessions of the sections.

The Hungarian Academy of Sciences has maintained research institutes unaffiliated with universities since 1949. The Hungarian state applied modern principles of organisation of science when it placed research institutes, founded and owned by the state, under the supervision of an independent authority (the corps of academicians) instead of an executive organ (ministry). The act passed in 1994 provides for both the strengthening of the necessary autonomy of the network of research institutes within the Academy and the exercising of the right to assign tasks and measure achievement on the part of the owner (the state) and the manager (the Academy's public body).

In the 1980s, the research institutes and universities worked out a system of co-operation for undertaking joint scientific work by the university chairs and the research institutes and enabling employees of the latter to teach at universities on a contract basis. Our aim is to develop close co-operation between state-owned research centres and state university faculties. We also plan to increase the role of academic institutes in postgraduate training.

In 1997, the Academy's leadership initiated talks and took steps to bring manufacturers and academic institutes closer together. A survey of the Academy's institute network was started in order to determine which institute or group of institutes could co-operate with industry and if commissioning from manufacturers was possible. The reform of the award system serves co-operation between the Academy and industry.

Traditionally, the Academy operates research teams at university chairs. Certain jobs are assigned to university chairs at the recommendation of the various sections, while the university guarantees the facilities and other research conditions. Further development of this research-team system is desirable. We hope to set up similar academic research teams at private and state-owned companies. These teams are intended to function as the mobile units of Hungarian science.

The Academy has held competitions and given awards since its foundation. According to the planned modernisation of this system, the state (and, therefore, politically biased) award system would be supplemented by another set up by the public body of scientists. Academy awards that were financed from the budget but have lost their value may also be preserved as part of the new system. In addition, company-founded prizes are also given by the Academy.

The scientific elite must take part in the investigation of alternatives concerning opportunities open to the Hungarian state and the Hungarian nation in the 21st century. This is why we say that the forum for raising long-range questions and working out alternative solutions must be the Hungarian Academy of Sciences, where party politics play no part. In this way it may serve as the nation's counsel.

It was with this in mind that we launched the Strategic Studies at the Hungarian Academy of Sciences programme in the autumn of 1996, whereby the Academy may become new forum of public life. Strategic investigations and syntheses of selected issues have started (the future of Hungarian agribusiness, quality of life, the future of the Hungarian language, the future of traffic and transportation, management of water supplies, the future of the Danube basin, the Lowland programme, environmental protection and integration, Central European ecological monitoring, the future of information science, etc.). The government allocates funds decided by Parliament for the Strategic Studies Programme on the basis of contracts. It also shows the Academy's advisory role that in certain cases it undertakes by contract to work out alternative courses for a

ministry, giving its expertise in the preparation of decisions of executive power.

Every two years the Academy reports to Parliament on the situation of scholarship, the results of scientific research, and the state of research. This necessitates continuous monitoring. According to our plans, this is the Academy's job, which also means that it performs science policy functions.

The Hungarian Academy of Sciences, as a public body of scientists, works out long-term science policy concepts. In 1996, the government assigned the Academy with the task of preparing a long-term survey of the state of Hungarian science at the turn of the millennium. The treatise on Hungarian science policy, written as a part of this work, was discussed by ten study groups (e.g. the state of research, the question of financing, the relationship between universities and research institutes, the relationship between science and society, the international system of relations of science regionalism in science policy, etc.).

The organisation of the Academy must be made suitable for performing the above threefold task. This necessitates the thematic and infrastructural modernisation of scientific workshops as well as the establishment of the necessary units for management and for the organisation of science.

> Ferenc Glatz President

#### Sándor Kónya:

# A BRIEF HISTORY OF THE HUNGARIAN ACADEMY OF SCIENCES (1825–2002)

The need for establishing a scholarly society was first mentioned by Act VIII of 1808. During the last decade of the 18th and the first decade of the 19th century, various plans were conceived for the establishment of an academy for developing and propagating the Hungarian language and for promoting the development of science, but funds for establishing such a society were not available. This question was often raised until, at the November 3, 1825, district session of the Diet in Bratislava (the seat of the Hungarian Parliament), the county delegates started a debate on the matter of a Hungarian Learned Society, criticizing the magnates for not making sacrifices for a national cause. It was there that Count István Széchenyi offered one year's income of his estate for the purposes of a learned society.

Széchenyi's example was followed by Ábrahám Vay, Count György Andrássy, and Count György Károlyi, who also made significant contributions to the founding of the society.

#### **FIRST DECADES (1825–1867)**

The task of the society was specified as the development of the Hungarian language and the study and propagation of the sciences and the arts in Hungarian. Act XI of 1827 stated: "The voluntarily and freely donated capital in money shall be used to establish the Learned Society, that is, the Hungarian Academy."

The foundation of the Learned Society in Hungary, then on the threshold of bourgeois transformation, meant the realization of earlier aspirations that held that developing the Hungarian language and the flourishing of science were one of the important means of national progress.

A committee of the four founders and eleven writers and scholars worked out the bylaws of association, which the monarch endorsed in 1831, and the first "general assembly" of the Hungarian Learned Society convened on February 14, 1831.

The foundation itself pointed in the direction of bourgeois development, while the bylaws and the organization reflected the feudal conditions of the time of their conception. The Learned Society was directed by a 25-member Governing Board confirmed by the king. The Governing Board of mostly aristocrats and Church dignitaries selected the first members, elected the president and vice-president from among themselves and managed the Society's assets. The president and the vice-president were confirmed by the king. The bylaws stipulated that the Society was obligated to submit its publications to censorship, and its members were obliged to abstain from politics.

Society members gathered in six sections: I. Linguistics, II. Philosophy, III. Historiography, IV. Mathematics, V. Jurisprudence, VI. Natural Science. In accordance with the bylaws, the Society had 24 honorary, 42 full, and an unspecified number of corresponding members. The first full members included the poets Dániel Berzsenyi and Sándor Kisfaludy, the writer and language reformer Ferenc Kazinczy, the poets and dramatists Károly Kisfaludy and Mihály Vörösmarty. The first president of the Learned Society was Count József Teleki, its vice-president Count István Széchenyi, and its first secretary Gábor Döbrentei, who was replaced by Ferenc Toldy, a physician and literary historian, in 1835.

Its work was regulated by weekly meetings and annual assemblies. Members reported on their research results, students of the arts read their poems and literary works the themes of competitions were worked out and subsequently judged at the weekly meetings. Commemorative lectures were also read there. Attendance was compulsory for full members residing in Budapest. Sections began to hold separate meetings only from the 1840s on. New members were elected by the assembly by secret ballot on the written recommendation of honorary and full members.

Organizing the Society's library enriched the Society and helped improve the conditions of scholarly work. Its foundations were laid by the Teleki family's 30,000 volume library and enriched by further donations and the foreign exchange of books. It also acquired important manuscript bequests.

János Arany described the first decade of the Academy as follows: "When our Society was founded, in six sections at first according to the six main sciences, the sections were not separated according to the needs of independent work. The Academy always holds joint meetings; and, generally, true to the aim formulated in the bylaws, namely, 'the study and propagation of the sciences in Hungarian,' it tends to regard itself a 'language cultivating' association in accord with the old wish of the patriots, rather than a scholarly society working according to fields of study. At this time, the minutes show an intimate, almost familiar picture of the sessions. A few honorary, 8 or 10 full members, the anointed representatives of literature, and sometimes one or two corresponding members gather weekly. They confer and criticize articles in the journal; sometimes the subject is some field of study, the bee-like busy collection of dialectal words and technical terms; the screening and re-coining of the latter; preparatory work in wording and lexicography, the encouragement of belles letters, the standardization of literary language, making the achieved aesthetic revival permanent, and further developing it; in short, aspirations to improve and expand the Hungarian language, to propagate science in Hungarian. This effort is made not only at the center: the corresponding members are under obligation to send in strictly taken periodical reports and they are assigned with supervision of provincial printing houses, etc. The machinery is simple, but, in view of the results, the years of self-sacrificing work that the most eminent among us have put into things, sometimes not meant for geniuses, deserves all our gratitude."

During the first decade of the Learned Society's existence, its organizational framework operational system were established. At the same time, the partly organizational shortcomings, which became an obstacle to work, also came to the surface. The emergent reform aspirations in the country also exerted their influence in the Society, as a result of which proposals and demands for increased professionalism, as well as certain organizational changes, were formulated. A debate started on the aims of the Society over whether the Academy was a scholarly or a linguistic institute. Proposals were made to reorganize the six sections into four or three sections and concurrently establish their autonomy in their respective fields of study. There were criticisms of the power wielded by the Governing Board and the learned body's dependent position. It was noted that the natural sciences needed greater scope and greater financial assistance. These aspirations led to certain internal changes, but any modification of the bylaws was resisted by the Court.

The Learned Society, or the Hungarian Academy of Sciences (as it came to be called after 1845), worked successfully up to 1848 in developing the Hungarian language and literature and the national theater. It espoused the collection of Hungarian folk poetry, posted competitions for the solution of questions of national interest, and commissioned the writing and translation of plays. It laid the foundations for scientific book and journal publishing in Hungary. It regularly awarded prizes for outstanding scientific and literary achievements.

The prelude to and outbreak of the 1848 revolution, again brought the unsolved questions to the surface. On March 20, 1848, preparations for reforming the bylaws began. Some of the proposals for reform put forth that officers be elected by the members and not by the Governing Board, that the state extend financial assistance to the Academy, and that the lectures be made public. Others said that the measure of Academy members should be talent and knowledge, not birth or privileges. However, military actions pursuant to the outbreak of the revolution prevented the convening of the assembly to modify the bylaws as planned for the fall. The reform had to wait for better times. But they did not come.

The country's occupation after the defeat of the revolution and the war for independence greatly restrained the work of the Academy. It resumed partial activity only in spring 1850 with the imperial commissioner's permission. It was allowed to hold the weekly meetings but not the assembly for electing members. The new vice-president, Count György Andrássy, instead of the sickly president, directed the Academy's limited work.

The Academy – on imperial order – requested a license to operate, the granting of which was condition-

al on the modification of the bylaws. The new bylaws were framed by the government, approved by the monarch, and acknowledged by the Academy only in 1858. Until then it was allowed to work – for years without legal grounds – only under the direct supervision of the imperial commissioner. Permission was needed to hold meetings, and these were attended by the imperial commissioner.

The dual nature of the new bylaws characterizes the period well. On the one hand, it reflected dependence, the strict control exercised over the scope of activity by the ruling power which treated the country as if it were a province. Accordingly, instead of election by the Governing Board, it was the monarch who selected one of three candidates for the presidency, and instead of election by the assembly, it was the governor-general who nominated new members. On the other hand, it contained those changes in the Academy's organizational structure which guaranteed the framework for activity by legalizing the committee system, still in an early stage of development, and independent section meetings. Henceforth the institution was officially called the Hungarian Academy of Sciences.

After nine years, the Academy held its ceremonial general assembly in December 1858. Its greatly reduced membership acquired 74 new members. This was the time when such eminent figures of Hungarian literature as the poet János Arany, the doctor-writer Pál Gyulai, the novelist Mór Jókai, the historian Sándor Szilágyi, and the art historian Arnold Ipolyi became members. The number of representatives of the natural sciences also grew significantly. They included the surgeon János Balassa, the geographer János Hunfalvy, and the physicist Ányos Jedlik, the engineer József Stoczek, the geologist József Szabó. In the 1850s, more than half of the Governing Board members was replaced. Baron József Eötvös and Ferenc Deák joined the leading body in 1855. This same year, Count Emil Dessewffy succeeded József Teleki as president, and Baron József Eötvös became vice-president.

In the 1850s, debates at the Academy, operating under difficult circumstances, were renewed from time to time, in order to decide the role of scholarship and the Academy in society, its function in the bourgeois transformation of society. One group of social and natural scientists, who considered the exploration of reality to be the task of science and the service of the emerging bourgeois Hungary to be the Academy's national duty, came into conflict with those forces that tried to effect even the inevitable and absolutely necessary changes by relying solely on the aristocracy. By the end of the 1850s and the beginning of the 1860s, the balance of forces in the Academy changed in favor of a rational, realistic policy. The Academy was directed increasingly by Vice-President József Eötvös; Ferenc Toldy was succeeded by László Szalay as secretary in 1861 and he, in turn, by János Arany in 1864.

In the 1860s, the Academy's activity was increasingly pervaded by the science policy principle, according to which the results achieved in the natural and engineering sciences abroad were to be adopted and the sciences "developed further to the best of our ability." Furthermore, the social sciences had to employ modern methods to explore and show the nation's historical past, past and present life conditions, changes in the economy, the processes of urbanization. Secretary János Arany put this program as follows: "There's one thing mainly that awaits us Hungarians above all: to discover our country in every respect and show it to the world. When every lump of soil on this holy land of ours becomes known, every piece of stone reveals where it came from, whom it met; when everything living that breeds and moves there and that we have collected becomes part of one system; when we learn ... its moods, the nature of winds that bring rain and drought; when we unearth the deepest layers in the burial ground of its peoples, and, especially, when we see the language and actions expressing the past and present of those living today - of our dear nation - in the light of science, we acquire a political capital that cultured foreign countries are most happy to recognize."

Development of the system of committees continued in the 1860s with the setting up of the Statistics Committee alongside the Historiographic, the Linguistic, and the Archeological Committees set up in the 1850s.

The Academy became a national scholarship center in the 1860s, and it made several national initiatives to strengthen this position. It spoke up for the preservation of documents in the county and city archives, and initiated the establishment of the Statistical Office; its Archeological Committee dealt with the protection of monuments. It also wished to promote the process of bourgeois transformation through competitions.

During the course of this decade, the Academy's income grew considerably as a result of increased donations, in which the national collection for the construction of the Academy played an important part, and rising interest rates on foundation funds. In 1867, for the first time since its establishment, it also received a state subsidy.

The inauguration of the building of the Academy in 1865 was an important event in its history. Its reading rooms, conference rooms, art gallery, collection of minerals, and rich library offered great opportunities for scholarly work.

# AFTER THE COMPROMISE (1867–1949)

The Compromise of 1867 created a new situation in the country's life. The changes prompted the Academy to rid itself of the restraints imposed by the bylaws of 1858. The new bylaws were adopted in 1869 and, with a few modifications, remained in force until 1945.

According to the bylaws, the Academy's aim was the study of science and – adhering to the traditions of the reform period – the study and propagation of literature in Hungarian. The bylaws defined three scientific sections: I. Linguistics and Aesthetics; II. Philosophical, Social, and Historical Sciences; III. Mathematics and Natural Sciences.

The role and composition of the Governing Board changed significantly. Management of the Academy's assets and financial affairs remained within its jurisdiction. In addition to the president, vice-president, and secretary-general, it had 24 members, 12 of whom were elected from among the founders and the patrons of science, the other 12 from among the members of the Academy. The organizational change in 1869 promoted a more autonomous and free development of the sciences.

In the decades following the Compromise, the Academy's international relations began to gradually grow. From the 1870s, Hungarian scientists representing the Academy began to attend international congresses with increasing frequency. In 1900, the Hungarian Academy joined the International Association of Academies. Granting honorary membership to foreign scientists indicated the broadening of international relations. Already in 1858, the English historian Michael Famday, the German geographer Alexander Humboldt and historiographer Leopold von Ranke, and the Finnish folklorist Elias Lönnrot became members of the Academy. The English philosopher John Stuart Mill and natural scientist Charles Robert Darwin, the German physician Rudolf Virchow, the French chemist Louis Pasteur, the Russian chemist Dmitri Ivanovich Mendeleev, and the French mathematician and physicist Henri Poincaré, among others, were elected honorary members in the ensuing decades.

The Academy's role in society and scientific life changed during the last decades of the 19th century. Its weight and influence began to decline, and its energetic development came to a standstill.

From the 1870s, everyday life began to make demands on scientific research with increasing urgency. Agricultural needs were the first to induce the state to establish experimental research institutes. Mining interests led to the establishment of an independent institute for geological research. The Academy was not entrusted with directing the work of institutes which came into being under the supervision of the respective ministries. This was due not only to the Academy's autonomy but also to its cumbersome administration. In addition to research institutes, experimental laboratories directly serving practical needs and research centers at universities were also gradually established. All this took place outside the walls of the Academy.

In the last decades of the 19th and at the beginning of the 20th century, the Academy came increasingly under attack – and not without reason – for isolating itself from social progress, from urgent social problems. Because of its conservatism, it was also incapable of espousing the new trends in literature and art. During this period it owed its prestige mainly to outstanding natural scientists such as the physicist Loránd Eötvös, the chemist Vince Wartha, the biologist István Apáthy, the mathematician Gyula Kőnig, the doctors of medicine Endre Hőgyes and Mihály Lenhossék, the mathematicians Lipót Fejér and Frigyes Riesz, the veterinarian Ferenc Hutyra, and the mechanical engineer Donát Bánki.

In spite of the deterioration in the general science policy of the Academy, the activity of its sections and committees increased, not least because the growing number of researchers doing high-standard works. The network of committees grew: the Literary History Committee was set up in 1879, the Classical Philology and the Military Science Committees in 1883. Their members were appointed from among the full and corresponding members at section meetings held concurrently with the assemblies. Young professionals who were not members of the Academy but were considered suitable for the job could also work on the committees as "assistant members" on the recommendation of sections. New corresponding members were elected mainly from among them. The Academy also resumed its publishing activity and, in late 1870s, launched the socalled Special Library series in the fields of history, law and political science, and literature. During these years an increasing number of scientific journals were published, financed wholly or in part by the Academy.

Conservatism in the Academy leadership strengthened at the beginning of the 20th century. Albert Berzeviczy, who was elected president of the Academy in 1905 and filled this position for 30 years, was a steadfast representative of this science policy.

The proletarian dictatorship established by the revolution of 1918-1919 wanted to dissolve the Academy and end its state support and "national status." Attacking the unquestionable conservatism of the institute, the new cultural policy wished to break with every tradition. But after the brief, four-month-long dictatorship, the Academy – though broke – was able to resume work.

During the interwar period a peculiar situation set in at the Academy. The leadership represented the conservative ideals of the pre-World War One period, yet outstanding scientists, who made their mark in their respective fields, joined its ranks. A number of them gained international fame, including Albert Szent-Györgyi, Nobel-Prize-winning biochemist; Ottó Titusz Bláthy and Kálmán Kandó, mechanical engineers; Sándor Korányi, physician; Géza Zemplén and József Vargha, chemists; Béla Bartók and Zoltán Kodály; Zoltán Gombocz and Miklós Zsirai, philologists; Gyula Szekfű and István Hajnal, historians; János Horváth, literary historian; Farkas Heller, economist; István Györffy, ethnographer and Sándor Jávorka, botanist.

The successive governments tried to use the Academy to extend their social-cultural influence and propagate their own conservative ideas and the national ideology of the time. The Academy's leaders did their best to comply. At the same time, politics also helped the Academy to recover. As a result of the wartime inflation, the Academy lost many of its assets. However, Count Kunó Klebelsberg, the minister of religion and public education, had an important role in mind for the Academy and, therefore, provided regular state assistance. State subsidies and again increasing donations, plus foundations – the posting and reward of competitions, the support of the publication of scientific books and journals – helped the Academy to gradually regain its leading role in science in traditional ways.

At the end of the 1920s and the early 1930s, the

work of the committees revived and expanded. The Ethnographic Subcommittee was organized: in its Folkmusic Subcommittee Béla Bartók and Zoltán Kodály worked. The Fine Arts Committee and the Jurisprudence Committee also began their work.

Notwithstanding the worldwide surge ahead and differentiation in the natural sciences, the Academy's outdated organization kept the natural and engineering sciences in a minority position. The automatic distribution of funds for research and the higher costs of natural scientific research made its disadvantageous position even more conspicuous.

In the democratic political atmosphere following World War Two, the question of the transformation of the Academy could no longer be evaded. The new bylaws, giving the natural sciences a greater scope, were adopted in 1946. The independent Academy of Natural Sciences, founded by the Nobel-Prize-winning Albert Szent-Györgyi, was merged with the Academy, and the number of natural sciences sections increased to two. The Governing Board's autonomy was terminated, and henceforth its members were elected from among the academicians. The process of democratic transformation came to a standstill in 1949.

# THE ACADEMY UNDER THE COMMUNIST SYSTEM (1949–1988)

Act XXVII of 1949, modeled on the Soviet example, integrated the Academy into the newly developing political and institutional system, thus ending its autonomy and placing it under direct Communist Party and state control. According to the law, its duties included "the framing of a national scientific plan and the direction of the work of academic and non-academic research institutes with a scientific point of view." Its duties also included ensuring a succession of scientists, the operation of postgraduate training, developing a unified, centralized system of new academic degrees, and academic qualification. Furthermore, it was the Academy's job to supervise scientific societies, direct the publication of scientific books and journals, and promote international scientific relations. The Academy was intended to play an important part in disseminating the official ideology of Marxism-Leninism and its application in the field of science. In order to make the Academy suited for performing this role, the new bylaws stipulated the substantial reduction in the number of Academy members from 257 to 131. For political and ideological reasons, the majority of the old members and specifically, 122 of them - including many eminent scholars - were reclassified consulting members, thus virtually excluded. In the course of the reorganization, the Aesthetics Subsection, composed of writers and artists, was dissolved. At first six, then ten sections were created. The scientific sections established a broad network of committees by changing the previous system of committees. In the 1950s and 1960s, the academic research institutes were established primarily for the purpose of carrying out basic research in the field of natural sciences and the study of social sciences.

The operational system of the Academy – particularly in the beginning – was strictly centralized. Formally, the general assembly of academicians constituted its supreme body, but in fact it was a new organ, the Presidium, controlled by the Hungarian Workers' Party, that directed the Academy. The Presidium was comprised of elected officers and section chairmen. The sections were headed by five-to-seven-member directorates.

Although many elements in the function, jurisdiction, operational mechanism of the Academy changed between 1949 and 1989 – mostly following the partial changes in the political system and in science policy therein – essentially it remained a scientific body highly dependent on political authority and, simultaneously, an organization performing state administrative tasks. Over this 40-year period the Academy had four presidents: István Rusznyák (1948–1970), Tibor Erdey-Grúz (1970–1976), János Szentágothai (1976–1985), and Iván T. Berend (1985–1990).

The organizational reform introduced in 1969 intended to put an end to the difficulties arising from the dual function of acting both as a scientific body and as an administrative organ supervising the institutes, by formally keeping the unity of the Academy but organizationally separating the two activities. It "relieved" the scientific bodies (the Presidium, the sections and com-

mittees) of the administration of institutes in order to enable these bodies to exert a greater conceptual and methodological influence on the whole of scientific life, and put it them under the control of the president and the Presidium. The secretary-general, appointed by the government, was assigned with management and the supervision of the institutes. He was assisted in this work by the Central Bureau, which had ministerial status and carried out state administrative functions. Party and state control could be exercised directly - bypassing the various bodies - through the secretary-general acting as a government official. Although this rigid separation eased at the end of the 1970s and the role of scientific bodies in controlling the institutes grew, in essence, this organizational duality persisted until 1990, that is, formally speaking, until 1994 when the new law on the Academy came into force.

In spite of the distortions often forced onto it, or the voluntarily assumed one-sided practices, and mistakes, important achievements mark this 40-year period. Unquestionably, the most important contribution the Academy made to Hungarian science - besides the achievements of its members - was the theoretical work done at the research institutes and its application in practice. The high standard of the work of Academy members and academic institutes justly received international recognition in a number of areas and assured the participation of hundreds of Hungarian researchers in the broad system of international scientific relations. The Academy's participation in the system of academic qualification helped thousands to acquire academic degrees and enhance the success of Hungarian research.

#### THE TRANSITION (1988–1996)

The economic crisis in the late 1980s also had an impact on the amount of financial aid extended to research. Work began on how to change the management systems, including research management, to make them less costly for the state. It was also raised that the academic institutes should be dissolved, or annexed to universities. Given this situation, at the end of the 1980s, a reform process began to evolve at the Academy with the initiative for framing a new law on the Academy. Academy members unjustly expelled in 1949 were rehabilitated in 1989. In 1990, the new bylaws were adopted. Parallel with the change of the political system and under the leadership of the new president, Domokos Kosáry, reform of the Academy gained momentum. It ceased to exercise jurisdiction as a supreme authority and announced its intention to become a public body. At the president's initiative, the Széchenyi Academy of Literature and Art, gathering the eminent representatives of literature and the arts, was established as a socalled associate yet autonomous institute. The law on the Academy promulgated in March 1994 and the new bylaws adopted on the basis of the law signalled the end of the reform process.

According to Act XL of 1994, the Academy is a scholarly public body founded on the principle of self-government, whose main task is the study of science, the publicizing of scientific achievements, and the aid and promotion of research. Its members are the academicians. The number of Hungarian academicians under the age of 70 years cannot exceed 200. The Academy, as a public body, is composed of academicians and other representatives of the sciences with an academic degree, who work to solve the tasks of Hungarian science, express their intention to become members of the public body and accept the duties it involves. They exercise their rights through their representatives. The general assembly is the supreme organ of this public body, which is composed of academicians and delegates representing the non-academician members of the public body. The 200 delegates are elected by secret ballot. The general assembly frames its own bylaws, determines its order of procedure and budget, elects its officers (president, vice-presidents, secretary-general, vice-secretarygeneral), the committees of the general assembly, and the elected members of the presidium.

As the bylaws stipulate, the Academy has eleven sections:

- I. Linguistics and Literary Studies Section,
- II. Philosophy and Historical Studies Section,
- III. Mathematical Sciences Section,
- IV. Agricultural Sciences Section,
- V. Medical Sciences Section,
- VI. Technical Sciences Section,
- VII. Chemical Sciences Section,
- VIII. Biological Sciences Section,
- IX. Economics and Law Section,
- X. Earth Sciences Section,
- XI. Physical Sciences Section.

The sections operate committees corresponding to branches of scholarship and special fields of research. The Academy maintains research institutes and other institutions (libraries, archives, information systems, etc.) assisting their work, and extends aid to university research centers. The operation of research institutes is directed by the 30-member Council of Academic Research Centers with the assistance of three advisory boards. The Council of Doctors may confer the Doctor of the Hungarian Academy of Sciences title. The operation of the Academy is financed by the budget, income derived from its assets, and by foundations and donations.

Although the development of the new organizational structure and the new principles of operation accompanying the democratic transition took longer than expected – not least of all because of the drawn-out process of framing the law on the Academy – it was accomplished by 1995. The election of officers in 1996 inaugurated a new phase in the Academy's history under the new president, historian Ferenc Glatz.

## THE ACADEMY IN A NEW DEMOCRACY (1996–2002)

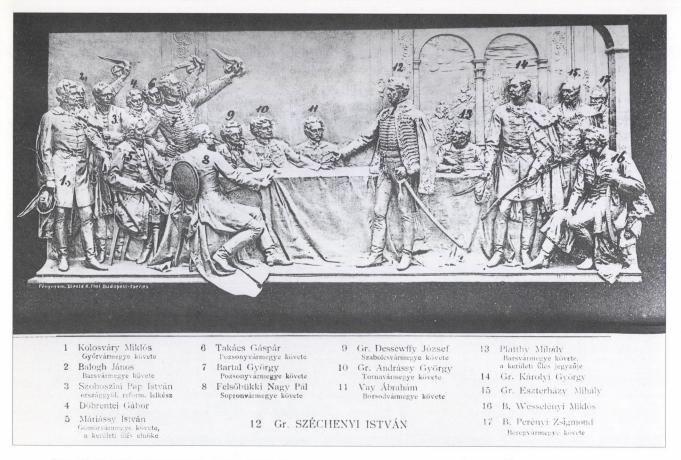
The year 1996 was marked by the start of a deep-going reform in Hungarian science policies. Instrumental to this reform was the newly elected leadership of the Academy. The reform proposed a very active science policy within the perimeters of a country recently freed from the Soviet regime, replacing that system with one that is as open to the world as it is democratic. Another objective was the exploration of information society's novel requirements towards science as well as the formation of a new science and research organization that could stand up to the needs of a new era. As to the financing of science and research, the new role of Government as opposed to the corporate world was also to be found. Science policy priorities set in 1969 had to be re-set as were serious gaps in ecology, minority studies, water conservation, etc. opening during the Soviet regime to be quickly bridged. The research base, threatened by a steep drop in Government financing between 1990-1996, was also to be salvaged.

This reform had started within the confines of the Academy but it aroused nationwide activism in science



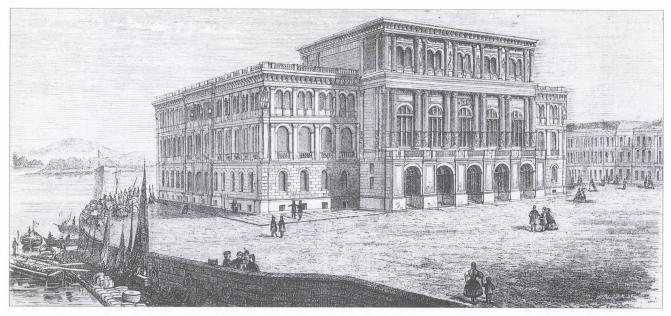
Count István Széchenyi, oil painting by Friedrich von Amerling, 1836.

#### UNDERSTANDING THE HUNGARIAN ACADEMY OF SCIENCES: A GUIDE



BARNABÁS HOLLÓ'S RELIEF ON THE EAST SIDE OF THE BUILDING SHOWS THE FOUNDATION OF THE ACADEMY. THE PHOTOGRAPH WAS MADE BY KÁROLY DIVALD AND SONS AROUND 1910, AND THE ART HISTORIAN KORNÉL DIVALD IDENTIFIED THE FIGURES.

Design by August Stüler, the architect from Berlin who won the competition. This woodcut of the final design was published in *Sunday News* on August 31, 1862.







LEFT: THE CEREMONIAL HALL OF THE HUNGARIAN ACADEMY OF SCIENCES AT THE INAUGURAL OF THE BUILDING.

RIGHT: AT ONE TIME, PARLIAMENT HELD ITS SESSIONS IN THE CEREMONIAL HALL.



The old library rooms on the ground floor of the wing overlooking the Danube. Woodcut by Károly Rusz, 1865.





LEFT: THE BYLAWS OF THE ACADEMY WERE ENACTED IN 1869 AND REMAINED IN FORCE WITH ONLY MINOR MODIFICATIONS UP TO THE END OF THE SECOND WORLD WAR. MIHÁLY KOVÁCS PAINTED THIS PORTAIT OF JÁNOS ARANY, POET, ONE OF THE AUTHORS OF THE BYLAWS, AND LONG-STANDING SECRETARY-GENERAL OF THE ACADEMY, IN 1869.

Right: Dániel Berzsenyi, oil painting by Miklós Barabás, 1835-1837.



Gábor Döbrentei, drawing by Miklós Barabás, 1844.

Ferenc Toldy (Schedel), drawing by Miklós Barabás, 1844.



MIHÁLY VÖRÖSMARTY, OIL PAINTING BY MIKLÓS BARABÁS, 1836.

László Szalay, an eminent historian, who succeeded Ferenc Toldy as secretary in 1861.





policies. From 1996 through 2001, Government science expenditures rose by 230%. The Academy's own budget rose by 310% from 1995 through 2002. Salaries of university lecturers and research personnel were raised by 34% in 2001 alone.

HAS has only recently got round to defining its new, triple function. First of all, the Academy is a traditional venue of research with its own network of research institutes (since 1949) as well as a site for scientific discussion and publication (since its inception in 1825). Secondly, the Academy is the counsel of the entire Hungarian nation taking it upon itself to explore and establish courses of action in long-term issues (cf. with its National Strategic Research project since 1996). Thirdly, the Academy represents the interests of all research workers in Hungary embracing as it does all research personnel with degrees into its public body (as provided for by the Academy Act of 1994). Since 1996, the Academy must also expound and periodically update Hungary's long-term science policy objectives. Since 1994, it must also regularly report to Parliament on the situation of Hungarian science and scholarship.

From 1996 through 2000 the Academy opened up its public body to scholars and scientists living abroad but declaring themselves to be Hungarian. It has provided grants and scholarships, since 1997, to all eligible Hungarians living outside Hungary's frontiers. It has also, since 2001, extended its activities to church institutions.

Thus, HAS has redefined the relationship of science and society. It proposed and organised, first in 1997, a yearly Festival of Hungarian Science proferring the chance, among other things, for the general public to tour university lecture-rooms and research institutes. A Public Relations Office was established at the Academy in 1996. Two years later, the Academy Club was opened providing a congenial meeting-place for entrepreneurs, politicians, and scholars.

The Academy has re-structured its network of research institutes comprising 39 institutes at present.

Sites vacated from 1990 through 1996 have been salvaged, other sites have been merged while each institute maintained its own guaranteed staff and budget. (The latter have been doubled from 1996 through 2002.) New research units have been established in ecology, water conservation, minority studies, experimental medicine, Hungarian Plains research, and linguistics. In 2000, as many as six Hungarian research institutes won titles of Centers of Excellence of the European Union – five of those belonging to HAS.

The Academy's own scholarly activities have also been refurbished. A new order of honorary and obituary lectures has been worked out. A new central unit has been made responsible for publishing honorary and obituary lectures. A new, monthly Programme Booklet gives directions to those wishing to attend the scholarly functions of the Academy and its institutes. The quarterly news magazine named *Akadémia* is sent out to all of the Academy's 10 000 public body members. A new edition of the Academy's Almanac was printed in 2001, and both the Academy's Yearbook and a Biographical Encyclopedia of all past and present members of HAS are in progress.

Shortly after the inception of HAS's National Strategic Research project in 1996, the book series Hungary at the Turn of the Millennium began to appear. Up to the time of writing, 28 volumes have been printed on such disparate topics as Hungarian agriculture, energy policies, water conservation, health, NATO, environment issues, ecology, etc. Summaries of each were printed in HAS's *Ezredforduló* (Turn of the Millennium) journal.

At the joint request of UNESCO and ICSU, the Hungarian Academy of Sciences organized the first ever World Conference on Science in Budapest.

HAS currently has 336 ordinary members. 2182 researchers have won Doctors of the Academy degrees in the Academy's system of qualifications, and the public body of HAS boasts around 10 000 members with at least Ph.D. degrees.

# ELECTED CHIEF OFFICERS OF THE HUNGARIAN ACADEMY OF SCIENCES

The elected high officials of HAS are: the President, the Vice-Presidents, the Secretary-General and the Deputy Secretary-General.

H–1051 Budapest, Roosevelt tér 9 Phone: (36–1) 338–2344, (36–1) 338–2376 Internet: www.mta.hu

Abbreviations:

HAS = Hungarian Academy of Sciences C.M. = Corresponding Member of HAS O.M. = Ordinary Member of HAS

PRESIDENT **Ferenc Glatz,** O.M. Phone: (36–1) 331–9353 Fax: (36–1) 332–8943 E-mail: glatz@office.mta.hu

VICE-PRESIDENTS László Keviczky, O.M. (natural sciences) Phone: (36–1) 331–4379 Fax: (36–1) 302–4808 E-mail: h10kev@ella.hu

E. Szilveszter Vizi, O.M. (life sciences) Phone: (36–1) 331–4379 Fax: (36–1) 302–4808 E-mail: h2250viz@ella.hu

György Enyedi, O.M. (social sciences and humanities) Phone: (36–1) 331–4379 Fax: (36–1) 302–4808 E-mail: enyedigy@office.mta.hu SECRETARY-GENERAL Norbert Kroó, O.M. Phone: (36–1) 311–9812 Fax: (36–1) 312–8483 E-mail: kroo@office.mta.hu

DEPUTY SECRETARY-GENERAL Attila Meskó, O.M. Phone: (36–1) 312–7069 Fax: (36–1) 311–3868 E-mail: mesko@office.mta.hu

# MEMBERSHIP OF THE HUNGARIAN ACADEMY OF SCIENCES

Under its Statutes, the Hungarian Academy of Sciences has ordinary (full), corresponding, external and honorary members (collectively called academicians), elected by the General Assembly on proposal by the scientific sections.

Abbreviations used:

O.M.: Ordinary Member, C.M.: Corresponding Member, E.M.: External Member, H.M.: Honorary Member.

## I. SECTION OF LINGUISTICS AND LITERARY SCHOLARSHIP

H-1051 Budapest, Nádor utca 7 Phone: (36-1) 411 6312 Fax: (36-1) 411 6122 Internet: www.nytud.hu/mtanyio E-mail: illess@office.mta.hu Chairman: FERENC KIEFER, O.M. Vice-chairman: MIKLÓS MARÓTH, C.M. Secretary: SÁNDOR ILLÉS

Scientific committees of the Section

Committee on Classical Philology Committee on Cultural History Committee on Dramatic Studies and Cinematography Committee on Ethnography Committee on Hungarian Linguistics Committee on Linguistics Committee on Literary Scholarship Committee on Musicology Committee on Oriental Studies ORDINARY MEMBERS

Benkő, Loránd (Nagyvárad, 1921) C.M.: 1965; O.M.: 1976 linguistics

Borzsák, István (Monor, 1914) C.M.: 1982; O.M.: 1987 classical philology

Hajdú, Péter (Budapest, 1923) C.M.: 1970; O.M.: 1976 Uralic linguistics

Harmatta, János (Hódmezővásárhely, 1917) C.M.: 1970; O.M.: 1979 classical philology, Indology, Iranistics

Hazai, György (Budapest, 1932) C.M.: 1982; O.M.: 1995 oriental studies, Turkic languages Herman, József

(Budapest, 1924) C.M.: 1982; O.M.: 1987 Roman philology, general and Latin linguistics

Kiefer, Ferenc (Apatin, 1931) C.M.: 1987; O.M.: 1995 general linguistics

Kiss, Lajos (Debrecen, 1922) C.M.: 1998, O.M.: 2001 Slavic and Hungarian linguistics

Köpeczi, Béla (Nagyenyed, 1921) C.M.: 1967; O.M.: 1976 literary history, history

Nagy, Péter (Budapest, 1920) C.M.: 1973; O.M.: 1983 Hungarian and French literary history Németh, G. Béla (Szombathely, 1925) C.M.: 1982; O.M.: 1990 19th- and 20th-century literary history, cultural history

**Poszler, György** (Kolozsvár, 1931) C.M.: 1990; O.M.: 1995 literary history, literary theory, aesthetics

Ritoók, Zsigmond (Budapest, 1929) C.M.: 1990; O.M.: 1993 classical studies

Róna-Tas, András (Budapest, 1931) C.M.: 1990; O.M.: 1995 linguistics, oriental studies

Szegedy-Maszák, Mihály (Budapest, 1943) C.M.: 1993; O.M.: 1998 comparative literary scholarship, Hungarian literary history

Ujfalussy, József (Debrecen, 1920) C.M.: 1973; O.M.: 1985 aesthetics, theory and history of music

CORRESPONDING MEMBERS

**Görömbei, András** (Polgár, 1945) C.M.: 2001 contemporary and minority Hungarian literature

Kara, György (Budapest, 1935) C.M.: 2001 Middle- and Far-Eastern languages

Kertész, András (Debrecen, 1956) C.M.: 2001 Germanic and general linguistics Kiss, Jenő (Mihályi, 1943) C.M.: 2001 Hungarian linguistics

Kósa, László (Cegléd, 1942) C.M.: 1998 ethnographyfolklore, cultural history

Kulcsár Szabó, Ernő (Debrecen, 1950) C.M.: 1995 modern literary history, literary hermeneutics

Maróth, Miklós (Budapest, 1943) C.M.: 1995 classical philology, Arabistics

**Paládi-Kovács, Attila** (Ózd, 1940) C.M.: 2001 European and Hungarian ethnography

**Somfai, László** (Jászladány, 1934) C.M.: 1995 musicology

Vizkelety, András (Tata, 1931) C.M.: 1998 Germanistics, mediaevalistics, codicology

#### EXTERNAL MEMBERS

Alföldy, Géza (Budapest, 1935) E.M.: 1995 classical history, Roman inscriptions

**Bodi, László** (Budapest, 1922) E.M.: 1995 Germanistics

Bori, Imre (Bácsföldvár, 1929) E.M.: 1990 Hungarian literary history Csaky, Moritz (Lőcse, 1936) E.M.: 1998 19th= and 20th-century Hungarian and Austrian history, cultural history

**Fáj, Attila** (Budapest, 1922) E.M.: 1998 comparative literary scholarship

Fejtő, Ferenc (Nagykanizsa, 1909) E.M.: 2001 modern East-Central European history

Fónagy, Iván (Budapest, 1920) E.M.: 1990 linguistics, language theory, phonetics

Honti, László (Lengyeltóti, 1943) E.M.: 1998 Uralic linguistics

Kibédi Varga, Áron (Szeged, 1930) E.M.: 1990 literary theory, French literary history

Moravcsik, Julius M. (Budapest, 1931) E.M.: 2001 philosophy

**Rákos, Péter** (Kassa, 1925) E.M.: 1998 literary theory, comparative literary scholarship

**Rédei, Károly** (Nagykanizsa, 1932) E.M.: 1990 Uralic linguistics

HONORARY MEMBERS

**Bierwisch, Manfred** (Halle/S., 1930) H.M.: 1995 Germanistics, general linguistics **Chandra, Lokesh** (Ambala, 1927) H.M.: 1984 Buddhism

Eren, Hasan (1916) H.M.: 1988 linguistics

Faragó, József (Brassó, 1922) H.M.: 1988 folklore

Flaker, Aleksandar (Bialystok, 1924) H.M.: 1976 Russian literature, comparative literary scholarship

**Gadamer, Hans-Georg** (Marburg, 1900) H.M.: 1983 philosophy, literary history

Handley, Eric Walter (Birmingham, 1926) H.M.: 1993 classical philology

Koselleck, Reinhart (Görlitz, 1923) H.M.: 1998 historical hermeneutics, theory of history, politology Mayrhofer, Manfred (Linz, 1926) H.M.: 1973 Indo-European linguistics

Michel, Alain (1929) H.M.: 1983 classical philology

Mortier, Roland (Gent, 1920) H.M.: 1979 French literature, comparative literary history

Naumann, Manfred (Chemnitz, 1925) H.M.: 1986 literary theory, comparative literary scholarship

Pellegrini, Giovanni B. (1921) H.M.: 1995 comparative linguistics

Perrot, Jean (Malesherbes /Loiret/, 1925) H.M.: 1980 general linguistics, Uralic languages

Sebeok, Thomas A. (Budapest, 1920) H.M.: 1993 linguistics, semiotics Shackleton, Robert (1919) H.M.: 1979 literary history

Sinor, Denis (Kolozsvár, 1916) H.M.: 1979 oriental studies

Sirendeb, Bazarin (1912) H.M.: 1964 history

Trinh, Hô Tôn (1920) H.M.: 1979 literary studies, semiotics

Vasoli, Cesare (1924) H.M.: 1976 history of philosophy

Voisine, Jacques René (1914) H.M.: 1979 comparative literary scholarship

Wickmann, Bo (Uppland, 1917) H.M.: 1998 linguistics (Uralistics, Hungarology)

Zieme, Peter (Berlin, 1942) H.M.: 2001 Turkish studies

## II. SECTION OF PHILOSOPHY AND HISTORY

H–1051 Budapest, Nádor utca 7 Phone: (36–1) 411 6219 Fax: (36–1) 411 6122 E-mail: farkasl@office.mta.hu Chairman: FERENC PATAKI, O.M. Vice-chairman: ERNŐ MAROSI, O.M. Secretary: LÁSZLÓ FARKAS SCIENTIFIC COMMITTEES OF THE SECTION

Committee on Archaeology Committee on Art History Committee on History Committee on Pedagogy Committee on Philosophy Committee on Psychology Complex Committee on the History of Science and Technology ORDINARY MEMBERS

Almási, Miklós (Budapest, 1932) C.M.: 1987; O.M.: 1993 philosophy, aesthetics

Berend, T. Iván (Budapest, 1930) C.M.: 1973; O.M.: 1979 history, history of economy Garas, Klára (Rákosszentmihály, 1919) C.M.: 1973; O.M.: 1985 art history

Glatz, Ferenc (Csepel, 1941) C.M.: 1993, O.M.: 2001 modern Hungarian history

Heller, Ágnes (Budapest, 1929) C.M.: 1990; O.M.: 1995 philosophy

Kosáry, Domokos (Selmecbánya, 1913) C.M.: 1982; O.M.: 1985 modern history of Hungary and Europe

Marosi, Ernő (Miskolc, 1940) C.M.: 1993, O.M.: 2001 art history

Mérei, Gyula (Budapest, 1911) C.M.: 1973; O.M.: 1979 modern history of Hungary, economic history

Niederhauser, Emil (Pozsony, 1923) C.M.: 1987; O.M.: 1993 comparative history of Eastern Europe

Nyíri, János Kristóf (Rákoskeresztúr, 1944) C.M.: 1993, O.M.: 2001 history of philosophy

Ormos, Mária (Debrecen, 1930) C.M.: 1987; O.M.: 1993 history of the 20th century

Pataki, Ferenc (Szentes, 1928) C.M.: 1985; O.M.: 1990 social psychology **Pölöskei, Ferenc** (Réde, 1930) C.M.: 1987; O.M.: 1995 history

Szabad, György (Arad, 1924) C.M.: 1982; O.M.: 1998 modern history of Hungary

Szabó, Miklós (Szombathely, 1940) C.M.: 1995, O.M.: 2001 classical archaeology, celtology

Székely, György (Budapest, 1924) C.M.: 1973; O.M.: 1985 history of the Middle Ages

Szigeti, József (Rákospalota, 1921) C.M.: 1967; O.M.: 1987 epistemology, aesthetics, history of philosophy

Varga, János (Sótony, 1927) C.M.: 1990; O.M.: 1998 social, agricultural and political history

CORRESPONDING MEMBERS

**Bálint, Csanád** (Kassa, 1943) C.M.: 2001 archeology and arts of the early Middle Ages

Galavics, Géza (Győr, 1940) C.M.: 2001 art history

Hunyady, György (Budapest, 1942) C.M.: 2001 social psychology

Kákosy, László (Budapest, 1932) C.M.: 1998 ancient history, Egyptology Kristó, Gyula (Orosháza, 1939) C.M.: 1998 history of Hungary in the Middle Ages

Kubinyi, András (Budapest, 1929) C.M.: 2001 medieval history and archeology

Pléh, Csaba (Sárisáp, 1945) C.M.: 1998 psycholinguistics, psychology of cognitive processes

Romsics, Ignác (Homokmégy, 1951) C.M.: 2001 modern Hungarian history

Vajda, Mihály András (Budapest, 1935) C.M.: 2001 social philosophy

EXTERNAL MEMBERS

**Benkő, Samu** (Lőrincfalva, 1928) E.M.: 1990 Hungarian and Transylvanian cultural history

Boskovits, Miklós (Budapest, 1935) E.M.: 1998 mediaeval and Renaissance painting

Csetri, Elek (Torda, 1924) E.M.: 1990 history of Transylvania

Csikszentmihályi, Mihály (Fiume, 1934) E.M.: 1998 psychology

22

Deák, István (Székesfehérvár, 1926) E.M.: 1990 modern European history

**Demény, Lajos** (Kisfülpös, 1926) E.M.: 1995 history

**Egyed, Ákos** (Bodos, 1929) E.M.: 1990 history

Hernád, István (Budapest, 1945) E.M.: 2001 cognitive psychology

Imreh, István (Sepsiszentkirály, 1919) E.M.: 1990 economic and social history

Márkus, György (Budapest, 1934) E.M.: 1990 philosophy

Mészáros, István (Budapest, 1930) E.M.: 1995 philosophy, politology, aesthetics

Molnár, Miklós (Budapest, 1918) E.M.: 1995 history

Péter, László (Rákosliget, 1929) E.M.: 1993 modern Hungarian history

H–1051 Budapest, Nádor utca 7 Phone / Fax: (36–1) 411 6128 Internet: www.math.bme.hu/ akademia/akad.html E-mail: laszloj@office.mta.hu Chairman: KÁLMÁN GYŐRY, O.M. Vice-chairman: PÁL RÉVÉSZ, O.M. Secretary: JÁNOS LÁSZLÓ, C.SC. HONORARY MEMBERS

Aretin, Karl Otmar von (Munich, 1923) H.M.: 1986 history

Bruner, Jerome (New York, 1915) H.M.: 2001 psychology

Dennett, Daniel C. (Boston, 1942) H.M.: 2001 cognitive psychology and philosophy

Evans, Robert J.W. (Leicester, 1943) H.M.: 1995 history

Gabriel, Astrik L. (Pécs, 1907) H.M.: 1983 history, palaeography

Geremek, Bronislaw (Warsaw, 1932) H.M.: 2001 social and cultural history

Haselsteiner, Horst (Belgrade, 1942) H.M.: 1998 History of the Habsburg Empire in the 1820th centuries

### **III. SECTION OF MATHEMATICS**

SCIENTIFIC COMMITTEES OF THE SECTION

Committee on Information Science Committee on Mathematics Committee on Operational Research Hill, John Edward Ch. (York, 1912) H.M.: 1981 history

Hintikka, Jaakko (Vantaa, 1929) H.M.: 2001 philosophical semantics

Hobsbawm, Eric J.E. (Alexandria, 1917) H.M.: 1979 history

Hunger, Herbert (Vienna, 1914) H.M.: 1976 Byzantinology

Jakó, Zsigmond (Biharfélegyháza, 1916) H.M.: 1988 history of the Middle Ages

Kocka, Jürgen (Haindorf, 1941) H.M.: 1995 modern history

Moscovici, Serge (Braila, 1925) H.M.: 1998 social psychology

Walter-Klingenstein, Grete (Hartberg, 1939) H.M.: 1998 state and clerical history in the 18th century

ORDINARY MEMBERS

Babai, László (Budapest, 1950) C.M.: 1990; O.M.: 1995 mathematics, computer science

Császár, Ákos (Budapest, 1924) C.M.: 1970; O.M.: 1979 real functions theory, general topology **Csiszár, Imre** (Miskolc, 1938) C.M.: 1990; O.M.: 1995 mathematics, mathematical statistics, information theory

Daróczy, Zoltán (Bihartorda, 1938) C.M.: 1985; O.M.: 1990 mathematical analysis

#### Demetrovics, János

(Püspökladány, 1946) C.M.: 1987; O.M.: 1995 information science, computer science

Fejes Tóth, László (Szeged, 1915) C.M.: 1962; O.M.: 1970 discrete geometry

Fritz, József (Magyaróvár, 1943) C.M.: 1995, O.M.: 2001 mathematical physics, probability theory

**Gécseg, Ferenc** (Zalavár, 1939) C.M.: 1987; O.M.: 1995 theory of automata

**Győry, Kálmán** (Ózd, 1940) C.M.: 1993; O.M.: 1998 mathematics, number theory

Hajnal, András (Budapest, 1931) C.M.: 1976; O.M.: 1982 set theory, combinatorics

Halász, Gábor (Budapest, 1941) C.M.: 1987; O.M.: 1995 mathematics

Katona, Gyula (Budapest, 1941) C.M.: 1995, O.M.:2001 combinatorics, computer science

Kátai, Imre (Kiskunlacháza, 1938) C.M.: 1979; O.M.: 1985 analytical number theory, fractal geometry Laczkovich, Miklós (Budapest, 1948) C.M.: 1993; O.M.: 1998 mathematics, real function theory

Leindler, László (Kecskemét, 1935) C.M.: 1973; O.M.: 1982 analysis

Lovász, László (Budapest, 1948) C.M.: 1979; O.M.: 1985 computer science

Prékopa, András (Nyíregyháza, 1929) C.M.: 1979; O.M.: 1985 operational research

**Révész, Pál** (Budapest, 1934) C.M.: 1982; O.M.: 1987 number theory

Szász, Domokos (Budapest, 1941) C.M.: 1990; O.M.: 1995 dynamic systems, mathematical statistical physics

Szemerédi, Endre (Budapest, 1940) C.M.: 1982; O.M.: 1987 combinatorics, number theory, algorithm theory

T. Sós, Vera (Budapest, 1930) C.M.: 1985; O.M.: 1990 combinatorics, number theory

Tandori, Károly (Újvidék, 1925) C.M.: 1965; O.M.: 1976 Fourier analysis

Totik, Vilmos (Mosonmagyaróvár, 1954) C.M.: 1993, O.M.: 2001 mathematics

Tusnády, Gábor (Mátészalka, 1941) C.M.: 1995, O.M.: 2001 mathematical statistics CORRESPONDING MEMBERS

Csörgő, Sándor (Egerfarmos, 1947) C.M.: 2001 probability theory and mathematical statistics

Hatvani, László (Csongrád, 1943) C.M.: 1998 mathematics, differential equations

**Rónyai, Lajos** (Szekszárd, 1955) C.M.: 2001 computation, algebra

Ruzsa Z., Imre (Budapest, 1953) C.M.: 1998 number theory, probability theory

**Sárközy, András** (Budapest, 1941) C.M.: 1998 number theory

Simonovits, Miklós (Budapest, 1943) C.M.: 2001 combinatorics, algorhythm theory

#### EXTERNAL MEMBERS

Aczél, János (Budapest, 1924) E.M.: 1990 mathematics

Ajtai, Miklós (Budapest, 1946) E.M.: 1995 mathematical logic, theoretical computer science, discrete mathematics

**Bollobás, Béla** (Budapest, 1943) E.M.: 1990 mathematics, combinatorics **Csörgő, Miklós** (Egerfarmos, 1932) E.M.: 1995 probability theory, mathematical statistics

Frankl, Péter (Kaposvár, 1953) E.M.: 1998 mathematics (combinatorics)

**Fuchs, László** (Budapest, 1924) E.M.: 1990 algebra

Galambos, János (Zirc, 1940) E.M.: 1993 probability theory, probabilistic number theory

Grätzer, György (Budapest, 1936) E.M.: 1998 lattice theory, universal algebra

Horváth, János (Budapest, 1924) E.M.: 1998 mathematics (linear functional analysis)

Kiss, Elemér (Brassó, 1929) E.M.: 2001 algebra, Bolyai studies

Kollár, János (Budapest, 1956) E.M.: 1995 mathematics, algebraic geometry

Kolumbán, József (Gyergyószentmiklós, 1935) E.M.: 2001 non-linear analysis Komlós, János (Budapest, 1942) E.M.: 1998 stochastics, discrete mathematics, computer science

Korányi, Ádám (Szeged, 1932) E.M.: 2001 geometry, integral theory

Makkai, Mihály (Budapest, 1939) E.M.: 1995 algebraic logic, model theory, category theory in logic

**Takács, Lajos** (Maglód, 1924) E.M.: 1993 probability theory

HONORARY MEMBERS

Baker, Alan (London, 1939) H.M.: 2001 number theory

Burkard, Rainer (Graz, 1943) H.M.: 1998 operational research

Carleson, Lennart A.E. (Stockholm, 1928) H.M.: 1986 mathematics

Foias, Ciprian (Resita, 1933) H.M.: 1993 mathematical analysis

Graham, Ronald L. (Taft, California, 1935) H.M.: 2001 computational geometry, cluster theory Halmos, Paul R. (Budapest, 1916) H.M.: 1979 mathematics

Kahane, Jean-Pierre (Paris, 1926) H.M.: 1988 mathematics

Lax, Peter David (Budapest, 1926) H.M.: 1993 functional analysis and its applications

Nikolski, Sergei M. (1905) H.M.: 1976 mathematics

Rudin, Mary Ellen (Hillsboro, Texas, 1924) H.M.: 1995 set-theoretical topology

Salomaa, Arto (Turku, 1934) H.M.: 1998 mathematics, computer science

Schinzel, Andrzej (Sandomierz, 1937) H.M.: 2001 number theory

Sinai, Iakov Grigorievich (Moscow, 1935) H.M.: 1993 mathematics

**Szekeres, György** (Budapest, 1911) H.M.: 1986 mathematics

Thirring, Walter (Vienna, 1927) H.M.: 1998 mathematical physics

### IV. SECTION OF AGRICULTURAL SCIENCES

H-1051 Budapest, Nádor utca 7 Phone: (36-1) 411 6310 Fax: (36-1) 411 6162 E-mail: esardi@office.mta.hu Chairman: JÁNOS DOHY, O.M. Vice-chairman: REZSŐ SOLYMOS, C.M. Secretary: ÉVA SÁRDI, C.SC.

SCIENTIFIC COMMITTEES OF THE SECTION

Committee on Agricultural Biotechnology Committee on Agricultural Economics Committee on Agricultural Engineering Committee on Agricultural History and Rural Sociology Committee on Agricultural Water Management Committee on Animal Husbandry and Foraging Committee on Biometrics and **Biomathematics** Committee on Forestry Committee on Horticulture Committee on Marketing Committee on Plant Breeding Committee on Plant Cultivation Committee on Plant Protection Committee on Soil Science and Agricultural Chemistry Committee on Veterinary Science Committee on Animal Experiments

ORDINARY MEMBERS

Balázs, Ervin (Budapest, 1948) C.M.: 1995, O.M.: 2001 molecular plant pathology, plant virology Balázs, Sándor (Szegvár, 1925) C.M.: 1982; O.M.: 1990 horticulture

**Bócsa, Iván** (Arad, 1926) C.M.: 1990; O.M.: 1995 genetics, breeding and seed production for arable crops

Csáki, Csaba (Túrkeve, 1940) C.M.: 1987; O.M.: 1993 agricultural economics

Cselőtei, László (Rákospalota, 1925) C.M.: 1970; O.M.: 1976 horticulture (irrigation)

Dimény, Imre (Komolló, 1922) C.M.: 1982; O.M.: 1990 agricultural economics (technological development)

Dohy, János (Debrecen, 1934) C.M.: 1993; O.M.: 1998 applied animal genetics and breeding, animal breeding biotechnology

Dudits, Dénes (Mosonmagyaróvár, 1943) C.M.: 1990; O.M.: 1995 molecular and cellular plant biology, biotechnology

Győrffy, Béla (Kemenesmagasi, 1928) C.M.: 1987; O.M.: 1993 plant cultivation

Harnos, Zsolt (Budapest, 1941) C.M.: 1995, O.M.: 2001 agroinformatics

Horn, Artúr (Cairo, 1911) C.M.: 1961; O.M.: 1967 applied animal genetics, cattle breeding Horn, Péter (Budapest, 1942) C.M.: 1985; O.M.: 1993 agricultural science, applied animal genetics

Horváth, József (Keszthely, 1936) C.M.: 1995, O.M.: 2001 agricultural science, plant protection, virology

Király, Zoltán (Óbecse, 1925) C.M.: 1973; O.M.: 1982 plant pathology, pathophysiology

Klement, Zoltán (Budapest, 1926) C.M.: 1985; O.M.: 1993 plant pathology, pathophysiology

Kovács, Ferenc (Somogyszentpál, 1921) C.M.: 1976; O.M.: 1982 environmental physiology, animal hygiene

Kozma, Pál (Gyulaháza, 1920) C.M.: 1967; O.M.: 1973 biology, genetics and breeding of vine

Kurnik, Ernő (Mecsekszabolcs, 1913) C.M.: 1970; O.M.: 1976 plant breeding and cultivation

Láng, István (Mohács, 1931) C.M.: 1979; O.M.: 1985 environmental science

Magyar, János (Csomád, 1911) C.M.: 1967; O.M.: 1985 forest management

Mészáros, János (Nádudvar, 1927) C.M.: 1976; O.M.: 1982 infectious diseases of domestic animals Rajki, Sándor (Pusztaföldvár, 1921) C.M.: 1976; O.M.: 1990 genetics, plant breeding

Sáringer, Gyula (Magyarszerdahely, 1928) C.M.: 1990; O.M.: 1995 plant protectional zoology, experimental insect ecology

Stefanovits, Pál (Kassa, 1920) C.M.: 1970; O.M.: 1976 pedology, agricultural environment protection

**Tomcsányi, Pál** (Budapest, 1924) C.M.: 1990; O.M.: 1995 agricultural marketing, evaluation of plant varieties, information management

Várallyay, György (Debrecen, 1935) C.M.: 1993; O.M.: 1998 soil science, agroecology and environment protection

#### **CORRESPONDING MEMBERS**

Heszky, László (Győr, 1945) C.M.: 1998 plant genetics, breeding and biotechnology

Hornok, László (Újpest, 1947) C.M.: 2001 agricultural microbiology

Nagy, Béla (Debrecen, 1941) C.M.: 1998 veterinary microbiology and epidemiology

Németh, Tamás (Szombathely, 1952) C.M.: 2001 soils, agrochemistry Schmidt, János (Feketeerdő, 1935) C.M.: 2001 fodder science

Solymos, Rezső (Bejcgyertyános, 1929) C.M.: 1998 forestry, sylviculture, yield production, forest management

Varga, János (Győr, 1941) C.M.: 2001 veterinary microbiology, epidemiology

EXTERNAL MEMBERS

Bornemisza, Elemér (Arad, 1930) E.M.: 1993 pedology, tropical soils

Kastori, Rudolf (Karlovac, 1935) E.M.: 1998 physiology of agricultural plants

Kosztarab, Mihály (Bucharest, 1927) E.M.: 1995 entomology, biology

Maliga, Pál (Budapest, 1946) E.M.: 2001 plant molecular genetics

Németh, Ferenc (Iván, 1933) E.M.: 1998 veterinary medicine, clinical zootherapy

Rédei, György (Vienna, 1921) E.M.: 1990 classical and molecular plant genetics Salamon, István (Marosvásárhely, 1918) E.M.: 1993 reproduction biology of domestic animals

Somogyi, Árpád (Környe, 1937) E.M.: 2001 pharmacology, toxicology

HONORARY MEMBERS

Borlaug, Norman E. (Crespo, Iowa, 1914) H.M.: 1980 agriculture, corn and wheat breeding

Boyazoglu, Jean (Alexandria, 1937) H.M.: 2001 genetics, agrarian economy

Dakov, Mako Petrov (Resseletz, 1920) H.M.: 1986 forestry

Ernst, Lev Konstantinovich (St. Senikovo, 1929) H.M.: 1998 animal husbandry

Goodman, Robert N. (Yonkers, New York, 1921) H.M.: 1987 plant pathology

Johnson, Stanley R. (USA, 1938) H.M.: 1998 agricultural economics

Kudrna, Karel (Sudomerice u Bechyne, 1924) H.M.: 1988 agricultural systems

27

Mac Key, James (Varberg, 1919) H.M.: 1986 agricultural science, genetics

#### Müller, Georg

(Budaörs, 1917) H.M.: 1986 soil biology

Rott, Rudolf (1927) H.M.: 1988 virology

#### Rübensam, Eric

(Jaasde, 1922) H.M.: 1983 agriculture, pasture economy, pedology

Schönmuth, Georg (Frankena, 1928) H.M.: 1985 agricultural science Vasil, Indra K. (Basti, 1932) H.M.: 1998 molecular and biotechnological plant breeding

**Vrtiak, Otto Jaroslav** (Danová, 1924) H.M.: 1983 virology

Zawadzki, Saturin (Radom, 1923) H.M.: 1998 pedology

#### V. SECTION OF MEDICAL SCIENCES

H–1051 Budapest, Nádor utca 7 Phone: (36-1) 411 6331 Fax: (36-1) 411 6239 E-mail: kurtine@office.mta.hu Chairman: GYULA TELEGDY, O.M. Vice-chairman: KÁLMÁN MAGYAR, O.M. Secretary: MIKLÓS TÓTH, C.SC.

SCIENTIFIC COMMITTEES OF THE SECTION

Committee on Clinical Medicine I (Conservative) Committee on Clinical Medicine II (Surgical) Committee on Diagnostics Committee on Preventive Medicine Committee on Theoretical Medicine Multi-Section Complex Committee on Pharmaceutics

**ORDINARY MEMBERS** 

Eckhardt, Sándor (Budapest, 1927) C.M.: 1985; O.M.: 1990 clinical oncology, pharmaceutical research Gáti, István (Bonyhád, 1922) C.M.: 1987; O.M.: 1993 obstetrics-gynaecology, endocrinology

Halász, Béla (Kalaznó, 1927) C.M.: 1979; O.M.: 1985 neuroendocrinology, anatomy, histology

Hollán, Zsuzsa (Budapest, 1920) C.M.: 1973; O.M.: 1982 haematology, immunology, blood transfusion

Ihász, Mihály (Vaszar, 1931) C.M.: 1990; O.M.: 1995 surgical gastroenterology

Jobst, Kázmér (Pécs, 1924) C.M.: 1982; O.M.: 1990 clinical chemistry

**Knoll, József** (Kassa, 1925) C.M.: 1970; O.M.: 1979 pharmacology

Lapis, Károly (Túrkeve, 1926) C.M.: 1970; O.M.: 1979 experimental tumour research, hepatology, ultrastructural research Magyar, Kálmán (Szentlőrinckáta, 1933) C.M.: 1987; O.M.: 1995 pharmaco-biochemistry of the central nervous system

**Méhes, Károly** (Budapest, 1936) C.M.: 1990; O.M.: 1995 clinical genetics

Muszbek, László (Sárrétudvari, 1942) C.M.: 1990; O.M.: 1995 blood coagulation

Nász, István (Túrkeve, 1927) C.M.: 1979; O.M.: 1985 microbiology, virology

Palkovits, Miklós (Budapest, 1933) C.M.: 1990; O.M.: 1995 neuroanatomy, neuroendocrinology

Papp, Gyula (Szigetvár, 1937) C.M.: 1993; O.M.: 1998 experimental cardiology, pharmacology of the heart and the vascular system **Pásztor, Emil** (Budapest, 1926) C.M.: 1979; O.M.: 1987 neurosurgery

Petrányi, Győző (Szeged, 1933) C.M.: 1990; O.M.: 1998 immunogenetics, transplantation immunology

Romics, László (Érd, 1936) C.M.: 1995, O.M.: 2001 internal medicine

**Spät, András** (Budapest, 1940) C.M.: 1993; O.M.: 1998 physiology, molecular endocrinology

Szegedi, Gyula (Újszász, 1936) C.M.: 1995, O.M.: 2001 internal pathology, clinical immunology

Szolcsányi, János (Budapest, 1938) C.M.: 1995, O.M.: 2001 medical science

Telegdy, Gyula (Nagyszeben, 1935) C.M.: 1990; O.M.: 1995 neurobiology

Vizi, E. Szilveszter (Budapest, 1936) C.M.: 1985; O.M.: 1990 pharmacology, neuroscience

CORRESPONDING MEMBERS

Ádám, Veronika (Nagykanizsa, 1949) C.M.: 2001 neuroscience, neurochemistry

Besznyák, István (Eger, 1931) C.M.: 1998 medical science Dobozy, Attila (Szeged, 1939) C.M.: 1998 dermatology, immunology

Kosztolányi, György (Szekszárd, 1942) C.M.: 2001 medical genetics

Kovács, László (Sátoraljaújhely, 1939) C.M.: 1998 cell physiology

Makara, B. Gábor (Budapest, 1939) C.M.: 1998 neuroendocrinology

Sótonyi, Péter (Budapest, 1938) C.M.: 2001 judicial pathology

**Tulassay, Tivadar** (Galánta, 1949) C.M.: 2001 pediatrics, neonatology

Vécsei, László (Kiskunfélegyháza, 1954) C.M.: 2001 clinical and experimental neurology

EXTERNAL MEMBERS

Ambrus, Clara (Rome, 1924) E.M.: 2001 pediatrics, haematology

Ambrus, Gyula (Budapest, 1924) E.M.: 1993 haematology, oncology

Bauer, Győző (Érsekújvár, 1942) E.M.: 1998 gastroenterology **Berde, Botond** (Nagyenyed, 1919) E.M.: 1993 pharmacology

Brassai, Zoltán (Marosvásárhely, 1935) E.M.: 1998 internal medicine

Diczfalusy, Egon (Miskolc, 1920) E.M.: 1998 reproductional endocrinology

Erdős, Ervin G. (Budapest, 1922) E.M.: 1995 neurobiochemistry

Frühling, János (Budapest, 1937) E.M.: 2001 nuclear medicine

Huszár, B. Gábor (Budapest, 1938) E.M.: 1998 andrology

Jakó, Géza (Budapest, 1930) E.M.: 2001 ear nose and throat medicine

Kúnos, György (Budapest, 1942) E.M.: 1995 pharmacology

Lajtha, Ábel (Budapest, 1922) E.M.: 1990 biochemistry

Lóránd, László (Győr, 1923) E.M.: 1995 biochemistry of blood coagulation, transglutaminascs, gerontology

Mody, István (Marosvásárhely, 1957) E.M.: 2001 neurology **Róbert, László** (Budapest, 1924) E.M.: 1995 biochemistry

Sinkovics, G. József (Budapest, 1924) E.M.: 1993 internal medicine, microbiology, immunology, oncology, virology

HONORARY MEMBERS

Berkowitz, Ross Stuart (Utica, 1949) H.M.: 1998 pregnancy tophoblast diseases, ovarian cancer

Bernard, Jean Alfred (Paris, 1907) H.M.: 1979 haematology

**Bowman, William C.** (1930) H.M.: 1995 physiology, pharmacology

Chazov, Ievgenii I. (Gorkii, 1929) H.M.: 1988 cardiology Dausset, Jean (Toulouse, 1916) H.M.: 1969 immunogenetics

De Wied, David (Deventer, 1925) H.M.: 1990 neuropeptides

Diehl, Volker (Berlin, 1938) H.M.: 1998 haematology, oncology

Gryglewski, Ryszard Jerzy (Wilno, 1932) H.M.: 1998 medical science

Klein, György (Budapest, 1925) H.M.: 1983 tumour biology

Lown, Bernard (1921) H.M.: 1988 cardiology

Müller, Mathias M. (Vienna, 1942) H.M.: 2001 laboratory medicine

Orlowski, Tadeusz (Kazan, 1917) H.M.: 1970 nephrology, organ transplantation Petrovskii, Boris V. (1908) H.M.: 1965 surgery

Ruskoaho, Heikki (Kemi, 1942) H.M.: 2001 cardiovascular endocrinology

Seitelberger, Franz (Vienna , 1916) H.M.: 1986 neurology, neuropathology

Thurau, Klaus (Bautzen, 1928) H.M.: 1986 physiology, nephrology

Weber, George (1922) H.M.: 1986 chemotherapy

Winkler, Hans (Innsbruck, 1939) H.M.: 1998 pharmacology

Yrribar, Wilfredo Torres (Guantánamo, 1933) H.M.: 1983 medical science

## VI. SECTION OF TECHNICAL SCIENCES

H–1051 Budapest, Nádor utca 7 Phone: (36–1) 411 6314 Fax: (36–1) 411 6122 E-mail: muszaki@office.mta.hu Chairman: LÁSZLÓ SOMLYÓDY, O.M. Vice-chairman: JÓZSEF GYULAI, O.M. Secretary: GYULA CZEGLÉDI COMMITTEES OF THE SECTION

Committee on Architecture Committee on Automation and Computer Science Committee on Electrical Engineering Committee on Electronic Devices and Technologies Committee on Energetics Committee on Fibre Technology Committee on Hydrodynamics and Thermal Energy Engineering Committee on Information Science Committee on Materials Science and Technology Committee on Mechanical Structures Committee on Metallurgy Committee on Telecommunication Systems Committee on the History and Theory of Architecture Committee on Theoretical and Applied Mechanics Committee on Town Planning Committee on Transport Engineering Committee on Water Management Complex Committee on Acoustics

**ORDINARY MEMBERS** 

**Bokor, József** (Tiszadob, 1948) C.M.: 1998, O.M.: 2001 system and control theory, computer control systems

Czibere, Tibor (Tapolca, 1930) C.M.: 1976; O.M.: 1985 hydromechanics, hydrodynamic machines

Csibi, Sándor (Szeged, 1927) C.M.: 1979; O.M.: 1987 coding and statistical methods of information transmission and processing

Csurgay, Árpád István (Budapest, 1936) C.M.: 1985; O.M.: 1993 theory of circuits, physical electronics

Finta, József (Kolozsvár, 1935) C.M.: 1985; O.M.: 1993 architecture, theory of architecture, spatial aesthetics

Gáspár, Zsolt (Budapest, 1944) C.M.: 1993; O.M.: 1998 theory and mechanics of structures

Györfi, László (Hercegfalva, 1947) C.M.: 1995, O.M.: 2001 mathematics (non-parametric statistics)

Gyulai, József (Hódmezővásárhely, 1933) C.M.: 1990; O.M.: 1995 material science, technology of semiconductors Kaliszky, Sándor (Diósgyőr, 1927) C.M.: 1990; O.M.: 1995 mechanics, plasticity theory

Keviczky, László (Ráckeve, 1945) C.M.: 1985; O.M.: 1993 control theory

Kollár, Lajos (Budapest, 1926) C.M.: 1990; O.M.: 1995 static and dynamic problems of supporting structures

Kozák, Imre (Gór, 1930) C.M.: 1995, O.M.: 2001 inanimate natural science and engineering

Lévai, András (Oravica, 1908) C.M.: 1962; O.M.: 1973 energetics, nuclear technology, environment protection

Lukács, József (Budapest, 1925) C.M.: 1973; O.M.: 1985 semiconductor technology, molecular reaction dynamics

Michelberger, Pál (Vecsés, 1930) C.M.: 1982; O.M.: 1990 engineering

Mosonyi, Emil (Budapest, 1910) C.M.: 1951; O.M.: 1991 hydrotechnology, utilisation of hydropower, hydrology

Nagy, István (Budapest, 1931) C.M.: 1993; O.M.: 1998 power electronics, motion control

Páczelt, István (Nyírparasznya, 1939) C.M.: 1987; O.M.: 1995 mechanical engineering, finite element method Prohászka, János (Budapest, 1920) C.M.: 1970; O.M.: 1982 material science and technology

Reményi, Károly (Pestszenterzsébet, 1934) C.M.: 1987; O.M.: 1998 energetics, combustion technology

Roska, Tamás (Budapest, 1940) C.M.: 1993; O.M.: 1998 electronics, information technology

Somlyódy, László (Kecskemét, 1943) C.M.: 1990; O.M.: 1998 water management, water quality management

Szabó, Ferenc (Gyoma, 1926) C.M.: 1982; O.M.: 1998 reactor physics, reactor technology

Szabó, János (Budapest, 1920) C.M.: 1970; O.M.: 1979 theoretical and applied mechanics

Tarnai, Tibor (Hatvan, 1943) C.M.: 1995, O.M.: 2001 mechanics of structures

Terplán, Zénó (Hegyeshalom, 1921) C.M.: 1990; O.M.: 1995 machine construction

Tuschák, Róbert (Salgótarján, 1927) C.M.: 1982; O.M.: 1990 machine construction

Vajda, György (Budapest, 1927) C.M.: 1976; O.M.: 1982 energetics, electrotechnics

Vajna, Zoltán (Kolozsvár, 1928) C.M.: 1993; O.M.: 1998 hydrodynamics Vámos, Tibor (Budapest, 1926) C.M.: 1973; O.M.: 1979 computer science

CORRESPONDING MEMBERS

Arató, Péter (Budapest, 1942) C.M.: 2001 digital technology, logical synthesis

Ginsztler, János (Budapest, 1943) C.M.: 2001 matter technology, high temperatures

Haszpra, Ottó (Budapest, 1928) C.M.: 1998 hydraulics, hydrotechnology

Kollár, László Péter (Budapest, 1958) C.M.: 2001 composite structures, seismic effects

Pap, László (Diósgyőr, 1943) C.M.: 2001 electronics, communications

Sitkei, György (Orosháza, 1931) C.M.: 1998 thermal power and agricultural machines, mechanics of soil cultivating machines

Stefán, Mihály (Bódvaszilas, 1932) C.M.: 1976 material science

Stépán, Gábor (Budapest, 1953) C.M.: 2001 analitic mechanics, non-linear vibrations EXTERNAL MEMBERS

**Bélády, László Antal** (Budapest, 1928) E.M.: 1990 computer science

Gertler, János (Vienna, 1936) E.M.: 1995 automation, technical diagnostics

Hottovy, Tibor (Budapest, 1923) E.M.: 1990 town planning, information science

Karádi, Gábor (Budapest, 1924) E.M.: 2001 fluid mechanics, environmental studies

Maros, Dezső (Hátszeg, 1920) E.M.: 1993 general theory of connecting cogwheels

Őry, Huba (Arad, 1927) E.M.: 1990 space flight, flight, mechanics of structures

Schey, János (Sopron, 1922) E.M.: 1990 malleable shaping of metals, tribology

Sebestyén, Gyula (Debrecen, 1921) E.M.: 1990 construction technology

Springer, György (Budapest, 1933) E.M.: 1995 mechanics of structures, composite materials

Szablya, János (Budapest, 1924) E.M.: 2001 electric machinery and networks Szabó, Barna (Martonvásár, 1935) E.M.: 1995 applied mechanics, finite element computations

HONORARY MEMBERS

Aström, Karl Johan (Östersund, 1934) H.M.: 2001 automatic and stochastic direction, computer processes

Balevshki, Angel Tonchev (Troian, 1910) H.M.: 1970 metallurgy

Beér, János Miklós (Budapest, 1923) H.M.: 1986 combustion technology and theory

Downs, Diarmuid (Kilburn, 1922) H.M.: 1988 internal-combustion engines

Engelbrecht, Jüri (1939) H.M.: 1998 applied mechanics

Holmes, Philip J. (Lincolnshire, 1945) H.M.: 2001 non-linear mechanics, dynamic systems

Julesz, Béla (Budapest, 1928) H.M.: 1983 computer-aided psychophysiology

Kálmán, Rudolf Emil (Budapest, 1930) H.M.: 1976 mathematics, systems theory

Kerisel, Jean Lehuéroq (1908) H.M.: 1973 engineering Krasovskii, Nikolai (Jekaterinburg, 1924) H.M.: 1988 control theory

Liebowitz, Harold (New York, 1924) H.M.: 1993 fractural mechanics

Maier, Giulio (Capodistria, 1931) H.M.: 1998 theoretical and numerical mechanics

## Mamalis, Athanasios G.

(Loutraki, 1941) H.M.: 1998 static and dynamic powder metallurgy processes, fracture safety of thin-wall metal polymer and glass fibre materials Massey, James Lee (Wauseon, Ohio, 1934) H.M.: 1993 information theory, algebraic code theory, cryptology

**Mróz, Zenon** (Suchowola, 1930)

H.M.: 2001 theoretical and applied mechanics

Seindlin, Aleksandr J. (1916) H.M.: 1979 energetics

Stumpers, Frans L.H.M. (Eindhoven, 1911) H.M.: 1979 information theory Thoma, Manfred (Neumarkt, 1929) H.M.: 1995 systems theory

Velihov, Ievgenii P (Moscow, 1935) H.M.: 1988 theoretical magnetohydrodynamics

Záborszky, John (Budapest, 1914) H.M.: 1986 systems theory

## Zemanek, Heinz

(Vienna, 1920) H.M.: 2001 computers, information science

## VII. SECTION OF CHEMICAL SCIENCES

H–1051 Budapest, Nádor utca 7
Phone/fax: (36–1) 411 6167
Internet: www.kfki.hu/~cheminfo/ osztaly/index.html
E-mail: pappe@office.mta.hu
Chairman: SÁNDOR GÖRÖG, O.M.
Vice-chairman: MIKLÓS ORBÁN, C.M.
Secretary: ZEMPLÉNNÉ ÉVA PAPP, PH.D.

SCIENTIFIC COMMITTEES OF THE SECTION

Committee on Analytical Chemistry Committee on Environmental Chemistry Committee on Organic and Biomolecular Chemistry Committee on Physical Chemistry and Inorganic Chemistry Committee on Radiochemistry Committee on Chemical and Processing Engineering Complex Committee on Food Science Complex Committee on Material Science and Technology

#### ORDINARY MEMBERS

Bartók, Mihály (Szeged, 1933) C.M.: 1987; O.M.: 1995 organic chemistry, heterogeneous catalysis

Beck, Mihály (Szőreg, 1929) C.M.: 1973; O.M.: 1979 physical chemistry, reaction kinetics, co-ordination chemistry

Benedek, Pál (Budapest, 1921) C.M.: 1973; O.M.: 1987 chemical engineering research, physical chemistry

Bérces, Tibor (Németbóly, 1932) C.M.: 1993; O.M.: 1998 physical chemistry, reaction kinetics **Farkas, József** (Budapest, 1933) C.M.: 1990, O.M.: 2001 food science

Görög, Sándor (Szombathely, 1933) C.M.: 1987; O.M.: 1995 analytical chemistry, pharmaceutical analyses

**Gyarmati, Istv**án (Szeged, 1929) C.M.: 1982; O.M.: 1990 theoretical and mathematical physics, physical chemistry

Hargittai, István (Budapest, 1941) C.M.: 1987; O.M.: 1993 physical and structural chemistry

Holló, János (Szentes, 1919) C.M.: 1967; O.M.: 1976 bioengineering

Inczédy, János (Budapest, 1923) C.M.: 1993, O.M.: 2001 analytical chemistry Kálmán, Alajos (Rákoskeresztúr, 1935) C.M.: 1995, O.M.: 2001 chemical crystallography

Kőrös, Endre (Győr, 1927) C.M.: 1990; O.M.: 1993 physical chemistry, co-ordination chemistry

Lempert, Károly (Budapest, 1924) C.M.: 1970; O.M.: 1982 organic chemistry

Lipták, András (Székely, 1935) C.M.: 1990; O.M.: 1998 chemistry of carbohydrates, biochemistry

Markó, László (Debrecen, 1928) C.M.: 1976; O.M.: 1987 organometallic chemistry, homogeneous catalysis

Márta, Ferenc (Kiskundorozsma, 1929) C.M.: 1970; O.M.: 1976 reaction kinetics, photochemistry

Medzihradszky, Kálmán (Rákoscsaba, 1928) C.M.: 1982; O.M.: 1990 organic chemistry, peptide chemistry

Nagy, Ferenc (Debrecen, 1927) C.M.: 1965; O.M.: 1985 physical chemistry, catalysis

Náray-Szabó, Gábor (Budapest, 1943) C.M.: 1990; O.M.: 1998 computational chemistry

Pálinkás, Gábor (Budapest, 1941) C.M.: 1995, O.M.: 2001 physical chemistry, solution chemistry Pungor, Ernő (Vasszécsény, 1923) C.M.: 1967; O.M.: 1976 analytical chemistry, electroanalytical chemistry

Solymosi, Frigyes (Kistelek, 1931) C.M.: 1982; O.M.: 1990 physical chemistry, heterogeneous catalysis, surface chemistry

Szántay, Csaba (Salgótarján, 1928) C.M.: 1970; O.M.: 1982 organic chemistry

**Tétényi, Pál** (Budapest, 1929) C.M.: 1970; O.M.: 1979 physical chemistry, isotope chemistry

Tóth, Klára (Nagykanizsa, 1939) C.M.: 1995, O.M.: 2001 analytical chemistry, electroanalytical chemistry

**Tőke, László** (Vönöck, 1933) C.M.: 1993; O.M.: 1998 organic chemistry

Vértes, Attila (Türje, 1934) C.M.: 1993; O.M.: 1998 nuclear chemistry

Corresponding members

Blaskó, Gábor (Szombathely, 1950) C.M.: 2001 organic chemistry, peptides

Dékány, Imre (Szeged, 1946) C.M.: 2001 colloid chemistry

Fonyó, Zsolt (Budapest, 1943) C.M.: 1998 chemical engineering science

**Gál, Sándor** (Farmos, 1933) C.M.: 1993 thermoanalysis, chemical technology Hollósi, Miklós (Budapest, 1941) C.M.: 1998 chemistry and structural biology of peptides and proteins, chiroptical and vibrational spectroscopy

Joó, Ferenc (Tótkomlós, 1949) C.M.: 2001 physical chemistry, catalysis

Orbán, Miklós (Ászár, 1939) C.M.: 1998 reaction kinetics, oscillatory and dissipative chemical systems

Penke, Botond (Beregszász, 1942) C.M.: 2001 organic chemistry, peptide chemistry

Sohár, Pál (Budapest, 1936) C.M.: 2001 chemical structures, spectroscopy

Szabadváry, Ferenc (Kőszeg, 1923) C.M.: 1995 history of chemistry, history of science and technology

## EXTERNAL MEMBERS

Angyal, István János (Budapest, 1914) E.M.: 1990 organic chemistry

**B. Nagy, János** (Akasztó, 1941) E.M.: 2001 physical chemistry

Bodánszky, Miklós (Budapest, 1915) E.M.: 1990 organic chemistry, peptide chemistry

34

Bodor, Miklós (Szatmárnémeti, 1939) E.M.: 1995 pharmaceutical research and development, theoretical and practical organic chemistry, chemical metabolism

Horváth, Csaba (Szolnok, 1930) E.M.: 1990 chromatography, electrophoresis, biotechnology

Kékedy, László (Máramarossziget, 1920) E.M.: 1998 analytical chemistry

Kennedy, P. József (Budapest, 1928) E.M.: 1993 macromolecular chemistry

Kováts, Ervin (Budapest, 1927) E.M.: 1993 analytical chemistry, chromatography

Mezey, Pál (Budapest, 1943) E.M.: 1998 mathematical chemistry

Pauncz, Rezső (Szőreg, 1920) E.M.: 1995 quantum chemistry

Pozsgay, Vince (Boldogkőváralja, 1946) E.M.: 1998 organic chemistry, carbohydrate chemistry, immunology

Pretsch, Ernő (Budapest, 1942) E.M.: 2001 analitic chemistry, electroanalysis, chemical structures

Pulay, Péter (Veszprém, 1941) E.M.: 1993 quantum chemistry Rabó, Gyula (Budapest, 1924) E.M.: 1993 chemical physics, inorganic chemistry

Sándorfy, Kamill (Budapest, 1920) E.M.: 1993 molecular, electron- and vibrational spectroscopy

Schügerl, Károly (Sopron, 1929) E.M.: 1995 chemical engineering, biotechnology, measurement technology

#### HONORARY MEMBERS

Balaban, Alexandru T. (Timisoara, 1931) H.M.: 2001 organic chemistry

Bardos, Thomas J. (Budapest, 1915) H.M.: 1983 pharmaceutical chemistry

Caglioti, Luciano (Rome, 1933) H.M.: 1995 organic chemistry

Che, Michel (Lyon, 1941) H.M.: 1993 heterogeneous catalysis

Friedlander, Gerhart (Munich, 1916) H.M.: 1998 nuclear chemistry

Knözinger, Helmut (1935) H.M.: 1995 heterogeneous catalysis, surface chemistry

Laurent, Torvard (Stockholm, 1930) H.M.: 1998 medical and physiological chemistry Lehn, Jean-Marie (Rosheim, 1939) H.M.: 2001 supramolecular chemistry

Malissa, Hanns (Bruck an der Mur, 1920) H.M.: 1988 analytical chemistry

Oláh, György (Budapest, 1927) H.M.: 1990 organic chemistry

Polanyi, John C. (Berlin, 1929) H.M.: 2001 physical chemistry, elementary reactions

Porter, George (Stainforth, 1920) H.M.: 1988 reaction kinetics

**Rebek, Julius** (Beregszász, 1944) H.M.: 2001 organic and supramolecular chemistry

Simionescu, Cristofor I. (Dumbráveni /Suceava/, 1920) H.M.: 1986 organic and molecular chemistry

Somorjai, Gábor A. (Budapest, 1935) H.M.: 1990 physical chemistry

Taube, Henry (Neudorf, Canada, 1915) H.M.: 1988 physical chemistry

Thomas, John Meurig (Swansea, 1932) H.M.: 1998 heterogeneous catalysis, solid-state chemistry

## VIII. SECTION OF BIOLOGICAL SCIENCES

H-1051 Budapest, Nádor utca 7 Phone/fax: (36-1) 411 6323 E-mail: bio@office.mta.hu Chairman: PÉTER FRIEDRICH, O.M. Vice-chairman: SÁNDOR MAHUNKA, C.M. Secretary: IMRE SZEMES, C.SC.

SCIENTIFIC COMMITTEES OF THE SECTION

Committee on Anthropology Committee on Biochemistry and Molecular Biology Committee on Biophysics Committee on Botany Committee on Cellular Biology and **Phylogenesis** Committee on Ecology Committee on Environment and Health Committee on General Microbiology Committee on Genetics Committee on Hydrobiology Committee on Immunology Committee on Nature Conservation and Conservation Biology Committee on Neurobiology Committee on Plant Physiology Committee on Zoology

ORDINARY MEMBERS

Ádám, György (Nagyvárad, 1922) C.M.: 1970; O.M.: 1979 human and animal physiology, psychophysiology

Alföldi, Lajos (Miskolc, 1927) C.M.: 1982; O.M.: 1990 microbial genetics Balogh, János (Nagybocskó, 1913) C.M.: 1965; O.M.: 1973 zoology, ecology

Berczik, Árpád (Budapest, 1929) C.M.: 1982; O.M.: 1990 hydrobiology, ecology, zoology

Borhidi, Attila (Budapest, 1932) C.M.: 1993, O.M.: 2001 botany, ecology, nature conservation

Csányi, Vilmos (Budapest, 1935) C.M.: 1995, O.M.: 2001 biology, ethology

Damjanovich, Sándor (Mátészalka, 1936) C.M.: 1982; O.M.: 1990 cell biology, biophysics, immunology

Dénes, Géza (Orosháza, 1925) C.M.: 1973; O.M.: 1985 biochemistry and molecular biology

Farkas, Tibor (Budapest, 1929) C.M.: 1990; O.M.: 1998 biochemistry

Fekete, Gábor (Budapest, 1930) C.M.: 1987; O.M.: 1995 synbiology (ecology, botany, vegetation research)

Ferenczy, Lajos (Kisújszállás, 1930) C.M.: 1987; O.M.: 1995 microbiology

Flerkó, Béla (Pécs, 1924) C.M.: 1970; O.M.: 1982 neuroendocrinology Friédrich, Péter (Budapest, 1936) C.M.: 1993; O.M.: 1998 biochemistry, neurobiology

**Garay, András** (Pécs, 1926) C.M.: 1973; O.M.: 1993 biophysics

**Gergely, János** (Karcag, 1925) C.M.: 1982; O.M.: 1990 immunology

Gráf, László (Zalaegerszeg, 1942) C.M.: 1993, O.M.: 2001 biochemistry and molecular biology

Hámori, József (Fegyvernek, 1932) C.M.: 1990; O.M.: 1998 neurobiology

Jermy, Tibor (Lőcse, 1917) C.M.: 1976; O.M.: 1985 experimental insect ecology and ethology, agricultural entomology

Kondorosi, Ádám (Budapest, 1946) C.M.: 1990; O.M.: 1998 molecular biology

Papp, László (Aranyosgadány, 1946) C.M.: 1990; O.M.: 1998 zootaxonomy, ecology

Patthy, László (Sopron, 1943) C.M.: 1995, O.M.: 2001 molecular biology

**Pócs, Tamás** (Budapest, 1933) C.M.: 1995, O.M.: 2001 bryology and tropical botany Salánki, János (Debrecen, 1929) C.M.: 1976; O.M.: 1987 neurobiology, environmental biology

Szabó, István Mihály (Baja, 1925) C.M.: 1990, O.M.: 2001 microbiology, ecology, environmental science

Székely, György (Püspökladány, 1926) C.M.: 1985; O.M.: 1993 neurobiology

Teplán, István (Magyarkeszi, 1932) C.M.: 1987; O.M.: 1995 chemistry and biology of biologically active materials

Tigyi, József (Kaposvár, 1926) C.M.: 1967; O.M.: 1976 biophysics (muscle and nervous systems), radiation biology

Venetianer, Pál (Budapest, 1935) C.M.: 1987; O.M.: 1995 molecular biology

Vida, Gábor (Budapest, 1935) C.M.: 1985; O.M.: 1993 genetics, evolution

Wolsky, Sándor (Budapest, 1902) C.M.: 1946; O.M.: 1946 developmental biology, genetics, evolution

CORRESPONDING MEMBERS

**Bíró, Péter** (Újfehértó, 1943) C.M.: 2001 hydrobiology, fish populations Falus, András (Budapest, 1947) C.M.: 2001 molecular cell biology, immunology and cell genetics

Fésüs, László (Hernádnémeti, 1947) C.M.: 1998 cellular and molecular biology

Freund, Tamás (Zirc, 1959) C.M.: 1998 neurobiology

Lénárd, László (Pécs, 1944) C.M.: 2001 neurobiology, behaviour science

Mahunka, Sándor (Budapest, 1937) C.M.: 1998 taxonomy of Acari, faunagenetics

**Orosz, László** (Kotlina-Sepse, 1943) C.M.: 2001 gene mapping, genetic recombinations

Závodszky, Péter (Debrecen, 1939) C.M.: 2001 biophysics, proteins

## EXTERNAL MEMBERS

**Ács, György** (Dunaszerdahely, 1923) E.M.: 1990 biochemistry

Aszalós, Adorján (Szeged, 1929) E.M.: 1995 cancer research, cellular biology, biophysics

Bodis-Wollner, Iván (Szeged, 1937) E.M.: 2001 neurosciences Buzsáki, György (Kaposvár, 1949) E.M.: 2001 neurophysiology

Friedmann, Imre (Budapest, 1921) E.M.: 1998 algology, ecology of external habitats, bacteriology, space biology

Gulyás, Balázs (Budapest, 1956) E.M.: 1995 neurobiology

Kiss, István (Szatmárnémeti, 1926) E.M.: 1993 microbiology, biochemistry, soil enzymology

**Klein, Éva** (Budapest, 1925) E.M.: 1993 tumour immunology

Lányi, K. János (Budapest, 1937) E.M.: 1993 biochemistry, biophysics

Lengyel, Péter (Budapest, 1929) E.M.: 1993 biochemistry

Müller, Miklós (Budapest, 1930) E.M.: 2001 parasitology, citology, philogenesis

Nagy-Tóth, Ferenc (Monó, 1929) E.M.: 1998 physiology and taxonomy of microalgae

Orlóci, László (Esztergomtábor, 1932) E.M.: 1990 ecology **Oroszlán, István** (Nagytilaj, 1927) E.M.: 1995 biochemistry

Péter, Mihály (Sóvárad, 1929) E.M.: 1998 microbiology

Szikura, József (Munkács, 1932) E.M.: 2001 botanics

Ullmann, Ágnes (Szatmár, 1927) E.M.: 1998 molecular biology

Uray, Zoltán (Kolozsvár, 1931) E.M.: 1998 radiation biology

HONORARY MEMBERS

**Bartfai, Tamas** (Budapest, 1948) H.M.: 2001 biochemistry, neuropharmacology

Cocking, Edward Ch.D. (London, 1931) H.M.: 1995 botany

Demain, Arnold L. (Brooklyn NY, 1927) H.M.: 2001 genetics of microorganisms

Eigen, Manfred (Bochum, 1929) H.M.: 1990 biophysics, chemistry

Franz, Herbert (Sopron, 1908) H.M.: 1983 ecology, entomology, geology

Gergely, John (Budapest, 1919) H.M.: 2001 biology, biomedical research Halver, John Emil (Woodinville, 1922) H.M.: 1998 food biochemistry

Hopwood, David Alan (Kinver, 1933) H.M.: 1990 genetics, microbiology

Hotchkiss, Rollin D. (1911) H.M.: 1976 molecular biology, bacterial physiology, genetics

Jacob, François (Nancy, 1920) H.M.: 1986 physiology

Kostiuk, Platon G. (Kiev, 1924) H.M.: 1990 neurophysiology

Masao, Ito (Tokyo, 1928) H.M.: 2001 brain sciences

Miledi, Ricardo (Mexico, D.F., 1927) H.M.: 1988 cellular and molecular biology

Morgun, Vladimir V. (Novoselitsa, 1938) H.M.: 2001 plant genetics

Murata, Norio (1940) H.M.: 1998 plant physiology

Norton, Roy A. (Rochester NY, 1947) H.M.: 2001 morphology, systemics Oliver, G. Stephen (Stratford, 1949) H.M.: 1998 molecular genetics of micro-organisms

Rapoport, Samuel M. (Woloczysk, 1912) H.M.: 1979 biochemistry

Raven, Peter H. (Sacramento, 1930) H.M.: 1998 botany, genetics

Riman, Jozef (Horni Sucha, 1925) H.M.: 1986 virus biochemistry

Roberts, Derek Frank (London, 1925) H.M.: 1993 human genetics

Roizman, Bernard (Kishinev, 1929) H.M.: 1995 microbiology

Schally, Andrew Victor (Vilnius, 1926) H.M.: 1986 endocrine oncology

Schell, Jozef S. (Antwerpen, 1935) H.M.: 1993 molecular plant biology and gene surgery

Smith, A. David (Kunming, 1938) H.M.: 1998 Alzheimer's disease

Smith, John Maynard (Elton, 1920) H.M.: 1993 evolution genetics Soran, Viorel (Moiseni-Certeze, 1928) H.M.: 1995 cellular biology

Southwood, Th. Richard (1931) H.M.: 1998 ecology, zoology

Suzuki, Koichi (Tokyo, 1939) H.M.: 2001 microbiology Szent-Györgyi, Andrew G. (Budapest, 1924) H.M.: 1998 biology

Vágó, Szilárd (Debrecen, 1921) H.M.: 1990 comparative cytopathology

Vánky, Kálmán (Székelyudvarhely, 1930) H.M.: 2001 microbiology Waldmann, Thomas A. (New York, 1930) H.M.: 1998 cellular biology, immunology, molecular biology

Yinglai, Wang (1907) H.M.: 1986 biochemistry

## IX. SECTION OF ECONOMICS AND LAW

H–1051 Budapest, Nádor utca 7 Phone: (36–1) 411 6343 Fax: (36–1) 411 6122 E-mail: metzger@office.mta.hu Chairman: TAMÁS SZENTES, O.M. Vice-chairman: LAJOS LŐRINCZ, O.M. Secretary: GYULA METZGER, C.SC.

SCIENTIFIC COMMITTEES OF THE SECTION

Committee on Demography Committee on Economics Committee on Finance Committee on Future Research Committee on Industrial Economics Committee on Labour Research Committee on Legal and Political Sciences Committee on Management Science Committee on Military Science Committee on Political Science Committee on Public Administration Committee on Regional Studies Committee on Sociology Committee on Statistics Committee on World Economics and **Development Studies** Committee on International Studies

ORDINARY MEMBERS

Cseh-Szombathy, László (Budapest, 1925) C.M.: 1993, O.M.: 2001 sociology

Csikós-Nagy, Béla (Szeged, 1915) C.M.: 1982; O.M.: 1987 economics, economic policy, price theory and policy

Enyedi, György (Budapest, 1930) C.M.: 1982; O.M.: 1990 social geography, regional studies

Erdős, Tibor (Budapest, 1928) C.M.: 1987; O.M.: 1993 economics

Falusné Szikra, Katalin (Moscow, 1924) C.M.: 1976; O.M.: 1985 economics, labour economics

Harmathy, Attila (Budapest, 1937) C.M.: 1993; O.M.: 1998 legal science, civil law

Herczegh, Géza Gábor (Nagykapos, 1928) C.M.: 1985; O.M.: 1990 international law

Huszár, Tibor (Veresegyháza, 1930) C.M.: 1983; O.M.: 1987 historical sociology

Király, Tibor (Málca, 1920) C.M.: 1979; O.M.: 1987 criminology

Kornai, János (Budapest, 1928) C.M.: 1976; O.M.: 1982 economics

Kulcsár, Kálmán (Erdőtelek, 1928) C.M.: 1973; O.M.: 1982 sociology of law, political sociology

Lőrincz, Lajos (Debrecen, 1935) C.M.: 1990; O.M.: 1998 public law, administration science

**Mádl, Ferenc** (Bánd, 1931) C.M.: 1987; O.M.: 1993 civil law

Mátyás, Antal (Budapest, 1923) C.M.: 1990; O.M.: 1995 history of economic theories Peschka, Vilmos (Budapest, 1929) C.M.: 1976; O.M.: 1982 philosophy of law

Sajó, András (Budapest, 1949) C.M.: 1995, O.M.: 2001 environmental law, sociology of law

Simai, Mihály (Budapest, 1930) C.M.: 1976; O.M.: 1985 world economics

Sipos, Aladár (Kisköre, 1927) C.M.: 1976; O.M.: 1982 economics, agroeconomics

**Szabó, Kálmán** (Bogyoszló, 1921) C.M.: 1973; O.M.: 1980 economics

**Szelényi, Iván** (Budapest, 1938) C.M.: 1990; O.M.: 1995 sociology

**Szentes, Tamás** (Dunakeszi, 1933) C.M.: 1993; O.M.: 1998 economics

Vékás, Lajos (Kolozsvár, 1939) C.M.: 1990; O.M.: 1995 civil law

CORRESPONDING MEMBERS

Fergéné Kecskeméti, Zsuzsa (Budapest, 1931) C.M.: 1998 sociology, social policy

Kádár, Béla (Pécs, 1934) C.M.: 2001 world economy Palánkai, Tibor (Jakabszállás, 1938) C.M.: 1995 economics

Sólyom, László (Pécs, 1942) C.M.: 2001 civil law, constitutional law

Szabó, András (Radnót, 1928) C.M.: 1998 criminology, criminal law

Szabó, Miklós (Tiszadorogma, 1942) C.M.: 2001 martial history

**Török, Ádám** (Budapest, 1952) C.M.: 2001 corporate and international economy

Zalai, Ernő (Budapest, 1943) C.M.: 1998 economics, mathematical economics

EXTERNAL MEMBERS

**Demény, Pál** (Nyíregyháza, 1932) E.M.: 2001 population studies

Karády, Viktor (Budapest, 1936) E.M.: 1993 historical sociology

Kende, Péter (Budapest, 1927) E.M.: 1993 politology

Kiss, A. Károly (Budapest, 1925) E.M.: 1990 international public law Lámfalussy, Sándor (Kapuvár, 1929) E.M.: 1998 economic policy, economic growth, international money market

Szabó, Dénes (Budapest, 1929) E.M.: 1993 criminology

Vaskovics, A. László (Csallóköznádasd, 1936) E.M.: 1998 sociology

HONORARY MEMBERS

Aganbegian, Abel G. (Tbilisi, 1932) H.M.: 1988 theoretical and applied economics

Beale, Hugh (Birmingham, 1948) H.M.: 2001 civil law

Broms, Bengt Henry G.A. (1929) H.M.: 1989 international law, constitutional law

Eser, Albin (Leidersbach, 1935) H.M.: 1993 comparative criminal law, medical law

Kohlmey, Günther (Berlin, 1913) H.M.: 1979 economics

Kudriavtsev, Vladimir (Moscow, 1923) H.M.: 1979 criminal law

Lesage, Michel (Aire-sur-la-dys, 1933) H.M.: 1990 constitutional law, administrative law Lukiç, Radomir (Milisevac, 1914) H.M.: 1976 legal science, sociology Scitovsky, Tibor (Budapest, 1910) H.M.: 1993 economics Streissler, Erich W. (Vienna, 1933) H.M.: 1988 economic history

## X. SECTION OF EARTH SCIENCES

H–1051 Budapest, Nádor utca 7 Phone/fax: (36–1) 411 6202 E-mail: nagyb@office.mta.hu Chairman: GYÖRGY PANTÓ, O.M. Vice-chairman: JÓZSEF ÁDÁM, C.M. Secretary: BÉLA NAGY, D.SC.

SCIENTIFIC COMMITTEES OF THE SECTION

Committee on Geochemistry, Mineralogy and Petrology Committee on Geodesy Committee on Geography I (Social Geography) Committee on Geography II (Physical Geography) Committee on Geology Committee on Geonomy Committee on Geophysics Committee on Hydrology Committee on Meteorology Committee on Mining Committee on Palaeontology Committee on Mining Ergonomy and Health

ORDINARY MEMBERS

Ádám, Antal (Szekszárd, 1929) C.M.: 1990; O.M.: 1993 geophysics

Bárdossy, György (Budapest, 1925) C.M.: 1993; O.M.: 1998 geology, geochemistry Biró, Péter (Budapest, 1930) C.M.: 1985; O.M.: 1990 physical geodesy

Czelnai, Rudolf (Miskolc, 1932) C.M.: 1976; O.M.: 1987 meteorology

Detrekői, Ákos (Budapest, 1939) C.M.: 1990; O.M.: 1995 geodesy, geoinformatics

Géczy, Barnabás (Doboz, 1925) C.M.: 1993; O.M.: 1998 palaeontology

Kapolyi, László (Újpest, 1932) C.M.: 1979; O.M.: 1985 raw material and energy management, systems theory of economic policy

Kovács, Ferenc (Győr, 1938) C.M.: 1987; O.M.: 1993 mine-exploitation theory

Major, György (Beregszász, 1941) C.M.: 1993; O.M.: 1998 meteorological radiation theory, satellite meteorology

Marosi, Sándor (Soltvadkert, 1929) C.M.: 1995, O.M.: 2001 physical geography, geomorphology, regional geography

Meskó, Attila (Budapest, 1940) C.M.: 1990; O.M.: 1995 environmental physics, geophysics Mészáros, Ernő (Budapest, 1935) C.M.: 1985; O.M.: 1990 air chemistry

Nemecz, Ernő (Losonc, 1920) C.M.: 1973; O.M.: 1980 mineralogy, geochemistry

Pantó, György (Budapest, 1936) C.M.: 1990; O.M.: 1995 geochemistry, mineralogy, petrology

Pécsi, Márton (Budafok, 1923) C.M.: 1965; O.M.: 1976 physical geography, geomorphology

Verő, József (Sopron, 1933) C.M.: 1995, O.M.: 2001 geophysics, solarterrestrial physics

#### Corresponding members

Ádám, József (Kocsér, 1950) C.M.: 1998 geodesy, space geodesy

Árkai, Péter (Budapest, 1944) C.M.: 1998 petrology, geochemistry, mineralogy

Hetényi, Magdolna (Szentlőrinckáta, 1944) C.M.: 2001 organic geochemistry

Márton, Péter (Budapest, 1934) C.M.: 2001 earth magnetism, geophysics Mészáros, Rezső (Makó, 1942) C.M.: 2001 social geography

Pápay, József (Für, 1939) C.M.: 1998 exploitation of oil and natural gas reserves, underground gas storage

EXTERNAL MEMBERS

**Bognár, András** (Zdenica, 1937) E.M.: 1998 general geomorphology, geoecology, Quaternary research

Hajnal, Zoltán (Cegléd, 1933) E.M.: 2001 earth physics, geoelectric and paleomagnetic studies

Halasi-Kun, György (Zágráb, 1916) E.M.: 1993 environment protection, hydroeconomics

Huszár, Rudolf (Martonos, 1941) E.M.: 1998 atmospheric aerosol research

Kónya, Kálmán (Cleveland, 1943) E.M.: 1995 blasting technology in mining and industry

Lázár, Árpád (Gyula, 1935) E.M.: 1998 raw material and energy policy

**Oplatka, Gábor** (Budapest, 1935) E.M.: 2001 transport studies

Rybach, László (Sopron, 1935) E.M.: 1990 carth science, geophysics Salamon, Miklós (Balkány, 1933) E.M.: 1998 rock mechanics, mining methods

Váli, Gábor (Budapest, 1936) E.M.: 1993 atmospheric research

Zoltai, Tibor (Győr, 1925) E.M.: 1990 mineralogy

HONORARY MEMBERS

Burkhard, Frenzel (Duisburg, 1928) H.M.: 1990 geoecology

Dercourt, Jean (Boulogne-Billancourt, 1935) H.M.: 1995 geology

Durand-Delga, Michel (Gaillac, 1923) H.M.: 1998 structural geology, stratology, ancient geology and history of science

Fettweis, Günter B.L. (Düsseldorf, 1924) H.M.: 1990 mining

Hjelt, Sven-Erik Oskar (Helsinki, 1939) H.M.: 1998 electromagnetic induction in the earth, geophysical inversion

Hoppe, Gunnar (Skallvik, 1924) H.M.: 1988 physical geography Jünemann, Reinhardt (Thaldorf, 1936) H.M.: 1995 rheology, mining informatics

Kautzleben, Heinz (Kelbra, 1934) H.M.: 1986 geophysics, geodynamics

Kostrowicki, Jerzy (Kosirenien, 1918) H.M.: 1986 geography

Maksimovic, Zoran (Belgrade, 1923) H.M.: 2001 geochemistry and crystallography

Mensching, Horst (Möllbergen-Porta, 1921) H.M.: 1986 geography, geoecology

Moritz, Helmut (Graz, 1933) H.M.: 1983 geodesy

Müller, Iván (Budapest, 1930) H.M.: 1988 geodesy

Paepe, Roland (Uitkerke, 1934) H.M.: 1990 applied Quaternary geology, geomorphology, sedimentology

Rummel, Reiner (Landshut, 1945) H.M.: 2001 upper geodesic studies

Torge, Wolfgang (Laubusch, 1931) H.M.: 1990 mathematical and physical geodesy, gravimetry Vuorela, Lauri (1913) H.M.: 1982 meteorology Wilke, Friedrich Ludwig (Essen, 1931) H.M.: 1998 mining design and expert systems

Zemann, Josef (Vienna, 1923) H.M.: 1982 mineralogy

## XI. SECTION OF PHYSICAL SCIENCES

H–1051 Budapest, Nádor utca 7 Phone: (36–1) 411 6313 Fax: (36–1) 411 6122 Internet: www.kfki.hu/fizoszt/indexhu.html E-mail: nemenyim@office.mta.hu Chairman: ZSOLT BOR, O.M. Vice-chairman: ZALÁN HORVÁTH, C.M. Secretary: MÁRTA NEMÉNYI

SCIENTIFIC COMMITTEES OF THE SECTION

Committee on Atomic and Molecular Physics Committee on Particle Physics Committee on Nuclear Physics Committee on Laser Physics and Spectroscopy Committee on Solid-state Physics Committee on Statistical Physics Committee on Astronomy and Space Research Committee on Radiation Protection, Environmental and Reactor Physics

**ORDINARY MEMBERS** 

Berényi, Dénes (Debrecen, 1928) C.M.: 1973; O.M.: 1985 nuclear physics

**Bor, Zsolt** (Orosháza, 1949) C.M.: 1990; O.M.: 1995 laser physics, optics, experimental physics Csikai, Gyula (Tiszaladány, 1930) C.M.: 1973; O.M.: 1985 nuclear physics, neutron physics

Gáspár, Rezső (Érsekvadkert, 1921) C.M.: 1970; O.M.: 1979 quantum chemistry, solid-state physics

Jánossy, András (Manchester, 1944) C.M.: 1993; O.M.: 1998 solid-state physics

Keszthelyi, Lajos (Kaposvár, 1927) C.M.: 1982; O.M.: 1987 biophysics

Kroó, Norbert (Budapest, 1934) C.M.: 1985; O.M.: 1990 solid-state physics, optics, neutron physics

Lovas, István (Gyöngyöshalász, 1931) C.M.: 1979; O.M.: 1987 nuclear physics

Marx, György (Budapest, 1927) C.M.: 1970; O.M.: 1982 particle physics, astrophysics

**Mezei, Ferenc** (Budapest, 1942) C.M.: 1982; O.M.: 1987 physics

Mihály, György (Kaposvár, 1951) C.M.: 1995, O.M.: 2001 solid-state physics **Nagy, Károly** (Ete, 1926) C.M.: 1965; O.M.: 1982 theoretical physics

**Pál, Lénárd** (Gyoma, 1925) C.M.: 1961; O.M.: 1973 solid-state physics, reactor physics

**Sólyom, Jenő** (Kolozsvár, 1940) C.M.: 1987; O.M.: 1993 theoretical solid-state physics

Szépfalusy, Péter (Szeged, 1931) C.M.: 1982; O.M.: 1987 theoretical physics, statistical physics

Vicsek, Tamás (Budapest, 1948) C.M.: 1995, O.M.: 2001 statistical physics, biophysics

Zawadowski, Alfréd (Budapest, 1936) C.M.: 1985; O.M.: 1990 theoretical solid-state physics

Zimányi, József (Budapest, 1931) C.M.: 1990; O.M.: 1995 theoretical physics, nuclear physics

CORRESPONDING MEMBERS

Faigel, Gyula (Ormosbánya, 1954) C.M.: 2001 experimental solid state physics

Horváth, Zalán (Debrecen, 1943) C.M.: 1998 particle physics Janszky, József (Csorna, 1943) C.M.: 2001 nonlinear and quantum optics

Kertész, János (Budapest, 1950) C.M.: 2001 statistical physics, computers

Németh, Judit (Budapest, 1932) C.M.: 1998 nuclear physics

Ormos, Pál (Szeged, 1951) C.M.: 1998 biophysics

Pálinkás, József (Galvács, 1952) C.M.: 1995 physics, experimental atomic and molecular physics

Patkós, András (Budapest, 1947) C.M.: 2001 theoretical particle physics

Szalay, A. Sándor (Debrecen, 1949) C.M.: 1990 astrophysics

EXTERNAL MEMBERS

**Balázs, Nándor** (Budapest, 1926) E.M.: 1995 theoretical physics

Domokos, Gábor (Budapest, 1933) E.M.: 1995 theoretical physics

Fenyves, Ervin (Budapest, 1924) E.M.: 1998 cosmic radiation, high-energy particle physics **Gábos, Zoltán** (Bánffyhunyad, 1924) E.M.: 1995 theoretical physics

Grűner, György (Mosonmagyaróvár, 1943) E.M.: 1990 experimental solid-state physics

**Győrffy, Balázs** (Eger, 1938) E.M.: 1995 theoretical solid-state physics

**Gyulassy, Miklós** (Szolnok, 1949) E.M.: 1998 high-energy theoretical physics

Hasenfratz, Péter (Budapest, 1946) E.M.: 2001 theoretical particle physics

**Jenkovszky, László** (Ungvár, 1942) E.M.: 1998 particle and nuclear physics

**Kuti, Gyula** (Budapest, 1940) E.M.: 1990 theoretical particle physics

Ladik, János (Budapest, 1929) E.M.: 1993 quantum chemistry, theoretical biophysics

Nagy, F. András (Budapest, 1932) E.M.: 1993 space physics

Polonyi, János (Budapest, 1953) E.M.: 2001 quantum space theory

Spenik, Ottó (Munkács, 1938) E.M.: 1998 nuclear physics Toró, Tibor (Énlaka, 1931) E.M.: 1993 theoretical physics

HONORARY MEMBERS

Kagan, Jurin M. (Moscow, 1928) H.M.: 1998 theoretical solid-state physics

Konuma, Mishiji (Tokyo, 1930) H.M.: 1998 theoretical physics

Mössbauer, Rudolf L. (Munich, 1929) H.M.: 1986 physics

Nilsson, Jan S. (Göteborg, 1932) H.M.: 2001 particle physics

**Nozieres, Philippe** (Paris, 1932) H.M.: 1990 theoretical solid-state physics

Pines, David (Kansas City, Missouri, 1924) H.M.: 1995 physics

Pitaievszkii, Lev P. (Saratov, 1933) H.M.: 1998 statistical physics

**Prohorov, Aleksandr M.** (Atherton, 1916) H.M.: 1976 physics

**Rubbia, Carlo** (Gorizia, 1934) H.M.: 1993 experimental particle physics Schopper, Herwig Franz

(Landskrona, 1924) H.M.: 1995 experimental particle physics

#### Shimizu, Sakae

(Tokyo, 1915) H.M.: 1995 nuclear physics, radiation protection Shitenko, Alexei G. (Cherniki, 1927) H.M.: 1998 nuclear physics, plasma physics

Saddeiev, Roald Z. (Kazan, 1932) H.M.: 1987 plasma physics

**Telegdi, Bálint** (Budapest, 1922) H.M.: 1990 experimental particle physics Teller, Ede (Budapest, 1908) H.M.: 1990 physics

Ting, Samuel C.C. (Ann Arbor, Michigan, 1936) H.M.: 1993

## Walther, Herbert

(Ludwigshafen, 1935) H.M.: 2001 quantum optics

## THE ORGANIZATION AND OPERATION OF THE ACADEMY

Pursuant to Act XL of 1994, the Hungarian Academy of Sciences is a public body founded on the principle of self-government and operating as a legal entity. Its main duty is the study of science, the publicizing of scientific results, the assistance of research, and the representation of Hungarian science.

The public body is composed of academicians – full and corresponding, as well as associate and honorary members – and others with an academic degree who, after applying for membership, gain admission.

Today there are 214 full members and 86 corresponding members. Those so elected by the full and corresponding members become academicians. The public body has 8644 non-academician members today.

The non-academician members of the public body exercise their rights through representation by electing 200 delegates to act on their behalf at the Academy's general assembly. The representatives are mandated for 3 years, and they may stand for reelection once.

The Academy establishes and maintains research institutes and other institutions (libraries, archives, information systems, etc.) for the study of science (today the Academy extends assistance to 42 research institutes and 125 research teams working at university and public-funded collections).

The Academy sets up and operates scientific sections and committees for the coordination of the activity of researchers working at the various institutions, research institutes, and universities (today there are 11 sections and 128 committees).

The Academy, even if not specifically requested, gives its opinion, based on research results, on questions it deems particularly important in science, society, and the economy.

In the course of its activity and carrying out its duties, the Academy

- maintains relations with Hungarian non-academic scientific institutions and organizations;
- maintains relations and enters into agreement with scientific institutions and organizations of other countries;
- organizes scientific congresses and sessions;
- posts scientific research competitions and awards prizes;
- takes part in academic qualification, awards the Doctor of the Academy title, and takes part in training PhDs.

Funds for the operation of the Academy are:

- the state budget, in which it comes under a separate heading;
- the income derived from its operation and the utilization of its assets;
- foundations, donations, and other assistance extended to promote its operation and development.

The president of the Academy submits to the government a report on the Academy's activity once every year, and to Parliament on the work of the Academy and the general state of Hungarian science once every two years.

## THE GENERAL ASSEMBLY

The General Assembly is the supreme body of the Academy as an independent public-law association, constituted by ordinary and corresponding members, and 200 representatives of non-academician members who are elected by secret ballot for a three year term. They may be re-elected once for an additional three year term.

The General Assembly adopts the Statutes, the Bylaws and the annual budget of the Academy, and determines the science policy principles and programmes affecting the entire work of the Academy. It discusses and approves the biennial report submitted to Parliament on both the Academy and the general state of science in Hungary, and the annual report presented to the Government on the Academy's activity. The General Assembly elects – for a three-year term – the leading officials of the Academy such as the President, the Vice-Presidents, the Secretary-General and the Deputy Secretary-General, and also the members of both the Presidium and the Council of the Academy's Research Units.

#### COMMITTEES OF THE GENERAL ASSEMBLY

The General Assembly elects standing committees for the performance of various special tasks. These are:

the Council of the Academy's Research Units

the Council of Doctors

the Supervisory Committee

the Board of Trustees (of the Academy's Property)

the Committee on the Ethics of Science

the Committee on Publishing Scientific Books and Periodicals.

#### Council of the Academy's Research Units (CARU)

The Academy maintains research institutes in order to ensure high-quality original research in the fields of the natural and social sciences and the humanities, runs other institutions to support their activities (i.e. libraries, archives, information system, etc.), and supports research groups affiliated to various university chairs. The present number of research institutes is 47.

These research institutes are supervised by the Council of the Academy's Research Units (CARU) which has 30 members, half of whom are elected by the General Assembly and the other half by the research institutes and other research units. CARU performs its research-related duties in close co-operation with the scientific sections. The function of its chairman is performed by the Secretary-General. CARU is helped by three advisory boards, each responsible for one of the three majors fields of science. It is the duty of these Boards to make proposals for the annual budgetary support and investment allocations in the case of each research institute and other research unit belonging to their respective fields of science. In co-operation with the related scientific sections and committees, these Boards also evaluate the performance of the individual research institutes.

Chairman: NORBERT KROÓ, O.M.

Secretariat: PÁL PRITZ, D.SC., ISTVÁN TEPLÁN, O.M.

#### Council of Doctors

The Council of Doctors may award the title of Doctor of the Hungarian Academy of Sciences to persons with a degree and with outstanding achievements in their field of learning, and who meet the conditions of obtaining this title. The Council has 25 members.

Chairman:LAJOS LŐRINCZ, O.M.Co-chairman:ATTILA DOBOZY, C.M.Secretary:JÁNOS PAPP, D.SC.

#### Supervisory Committee

The tasks of the 7-member Supervisory Committee are: to supervise the appropriate and lawful administration and management of the Academy's property, to give expert opinion to the General Assembly on the guiding principles of the Academy's annual budget and the annual budget statement.

Chairman: PÁL MICHELBERGER, O.M.

#### Board of Trustees

The seven members of the Board of Trustees are responsible for the promotion of the Academy's efficient property management.

Chairman: TAMÁS STRAUSZ

#### Committee on the Ethics of Science

Composed of 22 members, the Committee on the Ethics of Science takes a stand in matters of principle relating to the ethics of science on such issues as, the free pursuit of science and professional integrity.

Chairman: ISTVÁN GÁTI, O.M.

Committee on Publishing Scientific Books and Periodicals

The Committee on Publishing Scientific Books and Periodicals has 12 members. Its Chairman and Secretary are elected by the General Assembly, while its members are delegated by the scientific sections of the Academy. Its task is to co-ordinate the Academy's publishing policy and to promote the efficient use of the resources available for this purpose.

Chairman: LORÁND BENKŐ, O.M. Secretary: MIKLÓS HERNÁDI, C.Sc.

## THE PRESIDIUM OF THE ACADEMY

Composed of the Academy's leading officials, of the chairmen of the sections and of members elected by the General Assembly, the Presidium assists in the preparation of the general assemblies, determines the number of new members to be elected for each of the scientific sections, and settles disputes, should they arise, between the scientific sections. Relying on proposals by the scientific sections, the Presidium makes decisions on awarding the Academy's prizes and other distinctions. It also acts as the advisory body of the President.

Members of the Presidium are:

VOTING MEMBERS

#### Elected high officials of the Academy

FERENC GLATZ, O.M., President of HAS GYÖRGY ENYEDI, O.M., Vice-President of HAS LÁSZLÓ KEVICZKY, O.M., Vice-President of HAS E. SZILVESZTER VIZI, O.M., Vice-President of HAS NORBERT KROÓ, O.M., Secretary-General of HAS ATTILA MESKÓ, O.M., Deputy Secretary-General of HAS

Members elected by the General Assembly

Pál Michelberger, O.M.. János Gergely, O.M. Ernő Marosi, C.M. György Bazsa, D.Sc. Péter Szendrő, D.Sc. István Orosz, D.Sc. The elected chairmen of the scientific sections

FERENC KIEFER, O.M., Chairman of Section I FERENC PATAKI, O.M., Chairman of Section II KÁLMÁN GYŐRY, O.M., Chairman of Section III JÁNOS DOHY, O.M., Chairman of Section IV GYULA TELEGDY, O.M., Chairman of Section V LÁSZLÓ SOMLYÓDY, O.M., Chairman of Section VI SÁNDOR GÖRÖG, O.M., Chairman of Section VII PÉTER FRIEDRICH, O.M., Chairman of Section VIII TAMÁS SZENTES, O.M., Chairman of Section IX GYÖRGY PANTÓ, O.M., Chairman of Section X ZSOLT BOR, O.M., Chairman of Section XI

#### MEMBERS WITH VOICE BUT NO VOTE

ANDRÁS LIPTÁK, O.M., President of OTKA (Hungarian Scientific Research Fund)

VILMOS CSÁNYI, O.M., Editor-in-Chief of the journal Magyar Tudomány (Hungarian Science)

- ZOLTÁN GAÁL, President of the Hungarian Rectors' Conference
- DÉNES DUDITS, O.M. (director, representative of CARU)
- TAMÁS STRAUSZ (director), Chairman of the Academy's Board of Trustees
- PÁL MICHELBERGER, O.M., Chairman of the Academy's Supervisory Committee
- IMRE KOZÁK, O.M., representative of the Regional Committee

Some of the leading staff-members of the Academy's Secretariat are also regularly invited to the sessions of the Presidium.

Special committees assisting the Presidium in performing some of its important functions are:

Programme Council of Strategic Researches

Chairman: FERENC GLATZ, O.M. Co-chairman: ISTVÁN LÁNG, O.M. Secretary: MARGIT BALOGH, C.SC. The inauguration of the building of the Academy in 1865 was perhaps the most important event in its history since its foundation in 1825. The Academy's reading rooms, conference rooms, art gallery, and rich library have offered great opportunities for scholarly work and discussion. Subsequent generations have done their utmost to preserve and even enhance those opportunities.



JOHANN ENDER: "BORÚRA DERŰ" (CALM AFTER THE STORM) Allegory of the Hungarian Academy of Sciences (1831).





LEFT: RICHLY ORNAMENTED STAIRCASE. Right: The Ceremonial Hall today.



HALL OF PICTURES ON THE FIRST FLOOR.

#### THE BUILDING

THE RECEPTION ROOM OPENING INTO THE SMALL CONFERENCE ROOM.





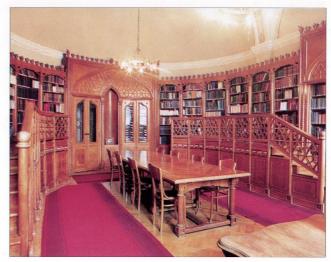
BOTTOM RIGHT: THE READING ROOM WITH ANTAL LIGETI'S OIL PAINTINGS.







The main reading room of the Academy's library at its new home.



MIDDLE ROOM OF THE ORIENTAL COLLECTION. THE ARCHAIZING PANELS AND FURNITURE WERE MADE IN THE 1950s.

THE GENERAL ASSEMBLY IN SESSION.



Committee on Environmental Sciences

Chairman: ATTILA MESKÓ, O.M. Secretary: IMRE SZEMES, C.Sc.

## THE GOVERNING BOARD

This body co-ordinates the work of the Academy's top executives in conjunction with representatives from branches of science. Its membership consists of the leading officials and the representatives of each of the three major fields of study (i.e. mathematics and natural sciences, life-sciences, and social sciences). The Board sets up standing committees to solve special tasks. These are: the Committee on International Relations, and the Social Welfare Committee.

Its members are:

FERENC GLATZ, O.M., President of HAS

NORBERT KROÓ, O.M., Secretary-General of HAS

ATTILA MESKÓ, O.M., Deputy Secretary-General of HAS

LÁSZLÓ KEVICZKY, O.M., Vice-President of HAS

GYÖRGY ENYEDI, O.M., Vice-President of HAS

E. SZILVESZTER VIZI, O.M., Vice-President

of HAS

Ernő Marosi, C.M.

János Gergely, O.M.

PÁL MICHELBERGER, O.M.

István Orosz, D.Sc.

KÁLMÁN PANNONHALMI, Secretary of the Panel

COMMITTEES OF THE PRESIDENT AND THE SECRETARY-GENERAL

In addition to above-mentioned committees of the General Assembly and the Presidium, the President and the Secretary-General shall set up special, permanent or ad hoc, joint committees for the solution of certain topical problems or problems of common concern. At present these are:

## Committee on Housing

Chairman: László Sáry Secretary: János Tivadar

#### Presidential Committee on Hungarian Science Abroad

Chairman: DÉNES BERÉNYI, O.M. Secretary: MARIANN TARNÓCZY

Committee on Social Relations

Chairman: PÉTER HORN, O.M. Secretary: B. ISTVÁN SZABÓ, PH.D.

Art Collection Council

Chairmen: G. BÉLA NÉMETH, O.M. LAJOS VAYER, O.M.

## SCIENTIFIC SECTIONS

Scientific sections follow closely, promote and evaluate all activities conducted in their respective fields of study; take a stand on scientific questions as well as in matters concerning science policy and research organisation; give their opinion on the activities of the Academy's research institutes and on those of the university chairs and other research units supported by the Academy; and participate in the procedure of awarding the title of Doctor of the Hungarian Academy of Sciences.

In performing their duties, the scientific sections rely heavily on the work of special committees composed of academicians and other elected non-academician members. Their number is ... at present.

Each section is headed by a chairman, elected from among the members of that section for a term of three years.

The Academy's scientific sections are as follows:

- I. Section of Linguistics and Literary Scholarship
- II. Section of Philosophy and History
- III. Section of Mathematics
- IV. Section of Agricultural Sciences
- V. Section of Medical Sciences
- VI. Section of Technical Sciences
- VII. Section of Chemical Sciences
- VIII. Section of Biological Sciences
- IX. Section of Economics and Law
- X. Section of Earth Sciences
- XI. Section of Physical Sciences

## REGIONAL COMMITTEES

The regional committees of the Academy are organised by major geographical regions of the country and are composed of academicians and representatives of highly qualified researchers working in the given region.

The Regional Committees of the Hungarian Academy of Sciences are:

#### REGIONAL COMMITTEE IN DEBRECEN

H-4032 Debrecen, Thomas Mann u. 49 Phone: (36–52) 412–177 Internet: larix.dab.hu/gdab.htm/ Chairman: GYÖRGY SZÉKELY, O.M. Vice-chairmen: ISTVÁN BITSKEY, D.SC. ERNŐ BRÜCHER, D.SC. Secretary: JÁNOS BORSOS, D.SC.

#### **REGIONAL COMMITTEE IN MISKOLC**

H–3530 Miskolc, Erzsébet tér 3. Phone: (36–46) 340–633 Internet: www.mta.hu/felepites/teruleti/mab.htm Chairman: IMRE KOZÁK, O.M. Vice-chairmen: IVÁN BÓCSA, O.M. GYÖRGY GYURKÓ, C.Sc. SÁNDOR ORBÁN, D.Sc. Secretary: LÁSZLÓ ÚJSZÁSZY, C.Sc.

#### **REGIONAL COMMITTEE IN PÉCS**

H–7624 Pécs, Jurisics Miklós u. 44 Phone: (36–72) 512-620 Chairman: József Tigyi, O.M. Vice-chairmen: József Horváth, O.M. Sándor Komlósi, Ph.D. Tamás Katona, C.Sc. Secretary: István Fodor, C.Sc.

## REGIONAL COMMITTEE IN SZEGED

H–6720 Szeged, Somogyi B. u. 7 Phone: (36–62) 420–586 Chairman:FRIGYES SOLYMOSI, O.M.Vice-chairmen:LÁSZLÓ LEINDLER, O.M.PÁL ORMOS, C.M.GYULA PAPP, O.M.Secretary:TAMÁS KISS, D.Sc.

#### **REGIONAL COMMITTEE IN VESZPRÉM**

H–8200 Veszprém, Vár u. 37 Phone: (36–88) 428-859 Internet: dcs.vein.hu/VEAB/ Chairman: László Markó, O.M. Vice-chairmen: ANTAL ÁDÁM, O.M. GYULA SÁRINGER, O.M. JÁNOS RECHNITZER, D.SC. Secretary: FERENC FRIEDLER, D.SC.

## SZÉCHENYI ACADEMY OF LETTERS AND ARTS

H–1051 Budapest, Roosevelt tér 9 Phone/fax: (36–1) 331–4117

The Hungarian Academy of Sciences established the Széchenyi Academy of Letters and Arts as an associated but autonomous body with statutes of its own, to include the eminent representatives of literary and artistic life, replacing the Arts Section closed in 1949. Leading officials:

President:MIKLÓS JANCSÓManaging president:LÁSZLÓ LATORPatron for life of the<br/>Széchenyi Academy:DOMOKOS KOSÁRY, O.M.Managing secretary:ANIKÓ KOVÁCS

The Széchenyi Academy is divided into the following sections:

Literature Section Fine Arts Section I. Fine Arts Section II. Motion Picture and Theatre Section Musical Arts Section

50

## THE SECRETARIAT OF THE HUNGARIAN ACADEMY OF SCIENCES

The scientific sections and leading bodies of the Academy are assisted in their work by the Secretariat directed by the Secretary-General.

Divisions of the Secretariat:

The Corporate Secretariat and the Secretariat of the Presidium H–1051 Budapest, Roosevelt tér 9 Phone: (36–1) 331–9353 Fax: (36–1) 332–8943 E-mail: elnokseg@office.mta.hu Department Head: KÁLMÁN PANNONHALMI

The Secretariat of the Secretary General H-1051 Budapest, Roosevelt tér 9 Phone: (36-1) 311-9812 Fax: (36-1) 312-8483 E-mail: zilahy@office.mta.hu Department Head: PÉTER ZILAHY, PH.D.

Natural Sciences Department H–1051 Budapest, Nádor u. 7 Phone: (36–1) 411-6367 Fax: (36–1) 411-6244 E-mail: teplani@office.mta.hu Department Head: ISTVÁN TEPLÁN, O.M.

Social Sciences Department H–1051 Budapest, Nádor u. 7 Phone/fax: (36–1) 411-6211 E-mail: pritz@office.mta.hu Department Head: PAL PRITZ, D.Sc.

## Finance Department

H–1051 Budapest, Nádor u. 7 Phone: (36–1) 411-6117 Fax: (36–1) 411-6192 E-mail: defter@office.mta.hu Department Head: ISTVÁN CSOMÓ

Legal and Administrative Department H–1051 Budapest, Nádor u. 7 Phone/fax: (36–1) 411-6188 E-mail: saryl@office.mta.hu Department Head: LÁSZLÓ SÁRY

## International Scientific Relations

Department H–1051 Budapest, Nádor u. 7 Phone: (36–1) 411-6185 Fax: (36–1) 411-6115 E-mail: kardon@office.mta.hu Department Head: BÉLA KARDON, D.SC.

Public Relations and Press Office H–1051 Budapest, Roosevelt tér 9 Phone/fax: (36–1) 302–5638 E-mail: priroda@office.mta.hu Director: B. ISTVÁN SZABÓ, PH.D.

Secretariat of the Council of Doctors H–1051 Budapest, Nádor u. 7 Phone: (36–1) 411-6221 Fax: (36–1) 411-6233 Department Head: ANDRÁS TAMÁS

# STRATEGIC RESEARCHES AT THE HUNGARIAN ACADEMY OF SCIENCES

In its Resolution 113/1996. (XII.20) the Hungarian Parliament invited the Hungarian Academy of Sciences to formulate the strategic problems the nation and the state has to face, and to work out alternative solutions. Parliament earmarked HUF 300 million for this purpose in the 1997 budget, HUF 200 million in 1998, HUF 150 million in 1999, and HUF 109.2 million in 2000.

Seven important research projects were undertaken in 1997; their number increased to 14 in 1998 and to 15 in 2000 divided into 11 programmes. These programmes are designed to encourage strategic thinking in general among the politicians as well as the public.

The national strategic research programmes are coordinated by the Programme Council. Its leading officials are:

Chairman:FERENC GLATZ, O.M., President of HASCo-chairman:ISTVÁN LÁNG, O.M.Secretary:MARGIT BALOGH, C.Sc.

Council members include the programme leaders, as well as András Inotai, Ernő Kemenes (from 1999 onwards Tamás Sárközy), Károly Manherz.

An Operative Programme Committee was set up within the Programme Council, which normally holds six sessions a year; its members are: Ferenc Glatz (chairman), István Láng (co-chairman), György Enyedi, András Inotai, Ernő Kemenes (from 1999 onwards Tamás Sárközy), Kálmán Kulcsár, Károly Manherz, and the secretary of both bodies (currently Margit Balogh).

To perform the daily duties, the two-member National Strategic Research Office was set up within the Institute for Research Organisation of HAS (with Margit Balogh as head of office and Edit Győri as executive secretary).

The results of these programmes have appeared in:

A series of books titled Magyarország az ezredforulón. Stratégiai kutatások a Magyar Tudományos Akadémián (Hungary at the Turn of the Millennium. Strategic Researches at the Hungarian Academy of Sciences);

Ezredforduló (Turn of the Millennium), a periodical appearing as a supplement to the journals História (History), Köznevelés (Public Education), Természet Világa (The World of Nature), and Technika (Technology);

Műhelytanulmányok (Workshop Studies, a series including studies produced as part of the individual programmes).

## A SUMMARISED REVIEW OF THE MAIN OBJECTIVES OF INDIVIDUAL STRATEGIC RESEARCH PROGRAMMES

## 1. Change of regime: Market economy, society, political institutions

(Project leaders: ISTVÁN GYÖRGY TÓTH, IVÁN VITÁNYI, and KÁLMÁN KULCSÁR)

The analyses aim to offer an overview of the process of the political transformation and its effects, both direct and indirect, on social structure, including changes in the way of life, lifestyle, culture and consciousness, as well as changes in social structure and in the political system. The studies also seek to show the expected tendencies and alternative solutions in the long run. The actual and expected effects of the Euro-Atlantic integration process on society are also analysed. Researches are going on under three independent, though closely related subprogrammes (projects): 1) Social structure in the period of market transition; 2) Changes in the way of life, lifestyle, culture and consciousness; 3) Social changes and the political system.

2. The present state and future vision of the agricultural sector in Hungary

(Project leaders: FERENC KOVÁCS and ISTVÁN LÁNG)

This programme aims to end the crisis in agricultural production and to prepare studies that would help the agricultural sector respond to the challenges offered by the world market and EU accession; to contribute to the increase of production and to improving the quality of produces, to ensuring the health safety of foodstuffs with due attention to the protection of the environment; to explore the factors which can increase the efficiency and competitiveness of the sector; to revise the structure of agricultural production; to analyse theoretical problems related to quality. Researches are going on under two independent but closely related subprogrammes (projects): 1) The scientific foundation of agricultural production; 2) Quality dimensions in agriculture.

## 3. Environmental protection and integration. Basic principles to help negotiations concerning EU accession

(Programme leader: SÁNDOR KEREKES)

This programme is practically connected partly with the Strategic Work Group for Integration and partly with investigations conducted by the Hungarian Academy of Sciences and the Ministry of Environmental Protection. Its primary aim is to lay a sound foundation based on scientific data for negotiations on environmental issues connected with Hungary's EU accession. In addition, the effects of the harmonisation of pollution regulations on the economic structure and its regional and territorial consequences are also examined. (For further detail see home page: www.mek.iif.hu)

# 4. The process of regional and urban development in Hungary

(Programme director: GYÖRGY ENYEDI, GYULA HORVÁTH, BÁLINT CSATÁRI) The programme is composed of three subprogrammes. The first is titled "General investigation of regional development," the second "Possibilities for the development of the Danubian region," and the third "New territories of the Hungarian Plain, settlement and social processes."

## General investigation of regional development

This programme aims to examine the mechanism and structure of the socio-economic processes determining Hungary's regional development and settlement system, and to prognosticate their spontaneous directions. The theoretical and empirical researches carried out up to now have made possible the formulation of a few hypotheses. Their testing in practice and the elaboration of alternatives are also included in the programme.

## Possibilities for the development of the Danubian region

## (Programme director: GYULA HORVÁTH)

This programme aims to investigate the developmental tendencies and directions in the West-, Central- and East-European regions of the Danubian macroregion with due consideration given to the general European and Hungarian trend in regional development; to summarise related concepts; to study the internal endowments of the Danubian regions in Hungary and the conditions necessary for developing an "innovation axis"; to lay the foundations for a Hungarian stand-point to be represented in European co-operation; to establish the strategic viewpoints to be observed in such negotiations.

## New territories of the Hungarian Plain, settlement, and social processes

(Programme director: BÁLINT CSATÁRI)

One of the main objectives of the investigations concerning the Hungarian Plain is to renew the Hungarian Plain Research Programme conducted between 1991 and 1994, and to evaluate and revise the results achieved under the programme. Another is to start a new line of research, the results of which may cast light upon the new territorial, economic and social processes through which the development of the macroregion may be made more effective and harmonious, and may also improve the adaptability of the settlements, regions and communities. (For further detail see home page: www.rkk.hu)

## 5. FACTORS OF THE QUALITY OF LIFE IN HUNGARY

## (Programme director: E. SZILVESZTER VIZI)

This programme attempts to examine and analyse the underlying causes of the present crisis in the health-care system in Hungary, as well as other circumstances affecting the quality of life of the population. Research results achieved under this programme are expected to contribute to the formulation of an urgently needed national strategy which would be followed through several parliamentary cycles and would rely on proper information and education of the population. The ultimate goal is to reverse the current tendencies which are in sharp contrast with those prevailing in Western Europe.

# 6. TRANSPORTATION AND ITS TECHNOLOGICAL INFRASTRUCTURE

## (Programme director: PAL MICHELBERGER)

In order that Hungary become a "gate" between the EU and Eastern Europe, it has to work out its particular tasks in the relevant fields of technology, economy, informatics, logistics, law and finances. It depends on the performance of these tasks whether or not Hungary will become a suitable partner, then a member of EU. A sound schedule of these tasks must also be prepared. To achieve all this, the programme is designed to examine and analyse the country's transportation system with all its implications and with its international connections.

## 7. NATIONAL CULTURE IN THE AGE OF INFORMATICS

This programme consists of four subprogrammes:

## The present and future of the Hungarian language

(Programme director: ZSIGMOND RITOÓK, in 2000: GÉZA BALÁZS)

The strategic aims of this programme are: to cast light upon the present state of the Hungarian language; to survey the tendencies prevailing in current usage; to study the existing and expected linguistic and social psychological problems that the "electronic revolution" and globalisation involve; to analyse the position of Hungarian as a minor language in view of the excessive spread of the world languages, especially English, in various walks of life.

# The image formed about Hungary and Hungarians at the turn of the millennium

(Programme director: ELEMÉR HANKISS, in 2000: АТТІLA РО́К)

The objective of this programme is to examine the problems of how the self-image and the external image of Hungarians could be changed and made more positive. The self-image of the nation and society was rather negative over the past decades; the nation's self-esteem is low, its vision of the future reflects gloom and uncertainty. Both Hungary and its citizens tend to project a self-image that is much worse than the real situation and performance would justify. This programme deals only superficially with the historical, political, social and cultural reasons underlying the development of the given – negative – situation. Instead, it concentrates on the tasks and possible ways of altering this attitude.

## Minority conflicts, and an alternative for their settlement in East-Central Europe

## (Programme director: ZOLTÁN SZÁSZ)

Under its Minority Studies Programme, the Hungarian Academy of Sciences is conducting investigations concerning Hungarian minorities in neighbouring countries, ethnic minorities in Hungary and Roma (Gypsy) minorities in East-Central European countries. As part of this programme, a total of ten projects were organised and sponsored in 1998 by social science research institutes in Hungary and the neighbouring countries. In addition, the programme includes the organisation of lectures on and discussions of the emerging problems to assist young researchers, as well as the publication of a series of research reports. Hungarian science abroad (A programme of the Presidential Committee of the Hungarian Academy of Sciences)

(Programme director: DÉNES BERÉNYI)

This programme aims to formulate a strategy for Hungarian scientific activities in foreign countries. This includes the clarification of the notion of Hungarian science abroad, as well as the establishment of the closest connections and co-operation possible with Hungarian scientists and scientific workshops outside Hungary. Furthermore, the programme also extends to operating an institutional and scholarship system (*Domus Hungarica*) enabling Hungarian scientists living abroad to take up residence and work in Hungary.

> 8. WATER MANAGEMENT IN HUNGARY: PRESENT SITUATION AND FUTURE PROSPECTS

## (Programme director: LÁSZLÓ SOMLYÓDY)

The main objective of this research programme is to provide a scientifically based strategic background for water management. The prognoses for the forthcoming decades deal with (I) the changing relationship between water and society, (II) new approaches related to the concept of sustainable development, (III) the impact of global climatic and economical changes and (IV) the consequences of EU-integration. These general aspects together with the special Hungarian circumstances (the high ratio of surface water resources that originates from abroad, the importance of the vulnerable subsurface water resources in the drinking water supply, the considerable lag in water infrastructure, large - often artificially modified - lowland catchment areas, high risk of floods, simultaneous demand for handling irrigation and drainage issues) are the starting points for analysing various scenarios and identifying the basic elements of future strategies. The latter may serve as the basis for formulating a new policy of water management for the coming few years and for identifying research needs. (For further detail see home page: www.vcst.bme.hu/cimlap1. htm)

## 9. HUNGARIAN ECOLOGICAL RESEARCHES FOR AN EAST-CENTRAL-EUROPEAN SCIENTIFIC NETWORK

(Programme director: ATTILA BORHIDI)

The aim of this programme is to contribute to and join ongoing international integrated programmes in the following areas: formation of an East-Central-European research network, development of its scientific background and means. Long-term experimental ecological model-studies aimed at nature conservation and environmental protection on ecological field-sites (ILTER-Project). Ecological studies on environmental changes in wetland-areas (Ramsar-Agreement). Studies on biotope, community and production changes provoked by the global climatic change (IGBP GCTE- Core Project). Ecophysiological and ecotoxicological studies on economically important plants and animals (EU-GCTE, ESPACE, ECOCRAFT Projects). Research on and the protection of microbiological biodiversity. Research on the sustainable use of biological communities in agricultural and forest ecosystems (Sustainable Development Project, COST- E4 Project). Long-term research in strategically important and highly endangered areas (Budapest Agglomeration). Studies on ecological changes of hydro-biotopes in the valley-systems of the Danube and Tisza rivers, monitoring and studies of ecological changes of lakes and standing waters (Alföld [Great Hungarian Plain] project, International Danube- Project, OECD-qualification Project). Landscape-ecological studies and mapping in the Hungarian Plains (Alföld- Project). Gene-conservation, genebank-treatment and population biological studies on protected and endangered species (IUCN- Project). Study of processes in secondary successions with special emphasis on changes in abandoned areas after cultivation and their rehabilitation (NO-LIMITS- Project).

10. Earth science researches to explore and protect Hungary's environment

(Programme director: ERNŐ MÉSZÁROS, in 2000: FERENC SCHWEITZER)

Under this programme researches have been started in three main fields:

(1) Waste disposal (assessment and forecasting of potential natural dangers and the relieving of their

effects; waste materials and recipient rocks, survey of factors improving or deteriorating storage capacity)

(2) Processes of material flow; natural and anthropogenic effects (circulation of water in the environment; problems of water supply and protection of water resources in Hungary; circulation of gases involving the hothouse effect and aerosolic particles; cycle of bioessential and unwholesome elements and their concentration in various geospheres; connections among the lithosphere, biosphere and atmosphere).

(3) Investigation of risk factors involved in terrestrial processes (a more precise spotting of seismogenic zones in Hungary; forecasting potential earthquakes, landslides; geological and geophysical evaluations of floodprevention works).

Researchers take stock of the arsenal of methodological tools and instruments at their disposal in investigating the natural environment, and determine the most important domestic tasks in which these can be put to use. 11. INFORMATION SOCIETY AND THE LEGAL SYSTEM

(Programme director: TAMÁS SÁRKÖZY)

This programme aims to analyse the legal aspects of the so-called information revolution with a special view to the following three topics:

(a) The development of mass communication gave rise to new, mass communication-specific branches of law which contain the elements of both public law and private law.

(b) The new demands on law that information society has raised (this forms the backbone of investigations under this programme).

(c) An examination of how the technical infrastructure of legislation and legal practice will change under the new circumstances.

## THE ACADEMY'S NETWORK OF RESEARCH INSTITUTES

In order to perform its tasks as defined by Act XL of 1994, the Academy maintains research institutes (centres, groups, laboratories) engaged in basic and/or applied research, and in some cases in experimental research and development as well. It also supports special research groups affiliated with higher educational institutions (mainly universities). The number of research institutes is 49, and that of university-affiliated research groups is 139.

## INSTITUTES FOR NATURAL SCIENCES

#### AGRICULTURAL RESEARCH INSTITUTE

Address: H-2462 Martonvásár, Brunszvik tér 2 Mail: H-2462 Martonvásár, P.O.Box 19 Phone: (36-22) 569-500 Fax: (36-22) 460-213 Internet: www.mgki.hu E-mail: bedoz@buza.mgki.hu Director: ZOLTÁN BEDŐ D.SC.

Main fields of research: Genetic research, cell biological and physiological research on plants, maize breeding research, maize agronomy research, cereal breeding research, resistance breeding on cereals. Further R&D activities include the development of new varieties satisfying practical requirements, cereal gene bank research, studies on the effects of global climatic changes on cultivated crops, investigation of sustainable crop production systems and the application of new methods in the breeding of plants resistant to abiotic and biotic stress factors. ASTRONOMICAL INSTITUTE (KONKOLY OBSERVATORY)

Address: H-1121 Budapest, Konkoly Thege út 15-17 Mail: H-1525 Budapest, P.O.Box 67 Phone: (36-1) 375-4122 Fax: (36-1) 275-4668 Internet: www.konkoly.hu E-mail: balazs@ogyalla.konkoly.hu Director: LAJOS G. BALÁZS, C.SC.

Main fields of research: Observational astronomical studies, mainly related to the physics of variable stars, galactic structure, solar and stellar activities, and the terrestrial upper structure.

#### BALATON LIMNOLOGICAL RESEARCH INSTITUTE

Address: H-8237 Tihany, Klebelsberg Kuno u. 1/3 Mail: H-8237 Tihany, P.O.Box 35 Phone: (36-87) 448-244 Fax: (36-87) 448-006 Internet: http://tres.blki.hu E-mail: herodek@tres.blki.hu Director: SÁNDOR HERODEK, D.Sc.

Main fields of research: Hydrobiology, in particular, the determination of the role of various factors in lake eutrophication and the optimum strategy for the reversal of this process. Research aims include the monitoring of the biological diversity of Lake Balaton, the clarification of interactions in aquatic ecosystems, and proposals for the conservation of biodiversity; experimental zoology, in particular, the study of the comparative neurobiology of signal molecules and their reception in the central and peripheral nervous systems of model invertebrates, the physiological and membrane effects of anthropogenic pollutants and blue-green algae toxins on aquatic animals, and the monitoring of the toxic pollution of living organisms of Lake Balaton and its catchment area.

## **BIOLOGICAL RESEARCH CENTRE (BRC)**

Address: H-6726 Szeged, Temesvári krt. 62 Mail: H-6701 Szeged, P.O.Box 521 Phone: (36-62) 432-232 Fax: (36-62) 432-576 Internet: www.szbk.u-szeged.hu E-mail: dudits@nucleus.szbk.u-szeged.hu Director: DÉNES DUDITS, O.M.

Main fields of research: Basic research in biophysics, biochemistry, enzymology, and plant biology. Research on molecular and cellular levels. Practical applicability of the results obtained in basic research in agriculture, in the pharmaceutical, food and chemical industries and in medicine. The Institute takes part in graduate training, higher education by mail, the methodological training of young scientists and in the work of the International Training Course, works in close co-operation with related institutes of the Academy, universities, and other Hungarian and foreign research institutions. Centre of Excellence by EU qualification.

## BRC INSTITUTE OF BIOCHEMISTRY

Address: H-6726 Szeged, Temesvári krt. 62 Mail: H-6701 Szeged, P.O.Box 521 Phone: (36-62) 433-506 Fax: (36-62) 433-506 Internet: www.szbk.u-szeged.hu E-mail: vigh@nucleus.szbk.u-szeged.hu Director: LáSZLÓ VÍGH, D.SC.

Main fields of research: Basic research using various modern methods applicable in natural sciences, studies on nucleic acids, proteins and lipids and their complexes on different organisational levels. Studies are aimed at a better understanding of the chemical and physicochemical nature of living matter, its changes, the regulation processes taking place in living matter and the laws governing life phenomena.

## BRC INSTITUTE OF BIOPHYSICS

Address: H-6726 Szeged, Temesvári krt. 62 Mail: H-6701 Szeged, P.O.Box 521 Phone: (36-62) 433-465 Fax: (36-62) 433-133 Internet: www.nucleus.szbk.u-szeged.hu E-mail: pali@nucleus.szbk.u-szeged.hu Director: PÁL ORMOS, C.M.

Main fields of research: Basic research in the fields of bioenergetics, membrane physics and neurobiology using modern physical, chemical and biological methods. Research in the self-organisation ability of matter, and studies on the regulation processes in living matter primarily by physical methods.

## BRC INSTITUTE OF ENZYMOLOGY

Address: H-1113 Budapest, Karolina út 29/31 Mail: H-1518 Budapest, P.O.Box 7 Phone: (36-1) 466-5633 Fax: (36-1) 466-5465 Internet: www.enzim.hu E-mail: friedric@enzim.hu Director: PÉTER FRIEDRICH, O.M.

Main fields of research: Basic research to elucidate the role of enzymes and other proteins in biological processes; the regulation of these processes on molecular level; studies on proteins and polypeptides; the improvement of experimental methods and the development of a theoretical basis.

## BRC INSTITUTE OF GENETICS

Address: H-6726 Szeged, Temesvári krt. 62 Mail: H-6701 Szeged, P.O.Box 521 Phone: (36-62) 432-232/231 Fax: (36-62) 433-503 Internet: www.szbk.u-szeged.hu E-mail: rasko@nucleus.szbk.u-szeged.hu Director: ISTVÁN RASKÓ, D.SC.

Main fields of research: Basic research on the mechanism of heredity and on the processes regulating and influencing the manifestation of hereditary traits on molecular and various other organisational levels.

#### BRC INSTITUTE OF PLANT BIOLOGY

Address: H-6726 Szeged, Temesvári krt. 62 Mail: H-6701 Szeged, PO.Box 521 Phone: (36-62) 432-232/169 Fax: (36-62) 433-434 Internet: www.szbk.u-szeged.hu E-mail: imre@nucleus.szbk.u-szeged.hu Director: IMRE VASS, D.Sc.

Main fields of research: Investigation of the basic molecular and cellular events in plant functions such as photosynthesis, environmental adaptation, recovery from damages, growth and development. The complex approaches are based on the methodology of physics, molecular and cell biology.

CHEMICAL RESEARCH CENTRE (CRC)

Address: H-1025 Budapest, Pusztaszeri út 59/67 Mail: 1525 Budapest, P.O.Box 17 Phone: (36-1) 325-7900 Fax: (36-1) 325-7554 E-mail: palg@chemres.hu Director: GÁBOR PÁLINKÁS, C.M.

CRC incorporates the Central Research Institute for Chemistry, the Isotope Research Institute, and the Research Laboratory of Materials and Environmental Chemistry.

#### CRC INSTITUTE OF CHEMISTRY

Address: H-1025 Budapest, Pusztaszeri út 59/67 Mail: 1525 Budapest, P.O.Box 17 Phone: (36-1) 325-7900 Fax: (36-1) 325-7554 Internet: www.chemres.hu E-mail: palg@chemres.hu Director: GÁBOR PÁLINKÁS, C.M.

Main fields of research: Organic and bioorganic chemistry, surface reactions and heterogeneous catalysis, kinetics and mechanism of chemical reactions, electrochemistry and corrosion, polymer chemistry and physics, environmental and analytical chemistry, material and molecular structure.

## CRC INSTITUTE OF ISOTOPE AND SURFACE CHEMISTRY

Address: H-1121 Budapest, Konkoly Thege M. út 29/33 Mail: H-1525 Budapest, P.O.Box 77 Phone: (36-1) 392-2531 Fax: (36-1) 392-2533 Internet: www.iki.kfki.hu E-mail: wojn@alpha0.iki.kfki.hu Director: LászLó WOJNÁROVTTS, D.Sc.

Main fields of research: Nuclear chemistry, including research in nuclear physics, nuclear elements analysis, nuclear safety and radiation protection, radiation chemistry, radiation physics and radiochemistry; surface reactions and heterogeneous catalysis, including preparation of model systems and their surface properties, study of the interaction of the surface with substrates, heterogeneous catalytic reactions.

## CRC Research Laboratory of Materials and Environmental Chemistry

Address: H-1025 Budapest, Pusztaszeri út 59/67 Mail: H-1525 Budapest, P.O.Box 17 Phone: (36-1) 325-7896 Fax: (36-1) 325-7892 Internet: www.chemres.hu/akkl E-mail: szepvol@chemres.hu Director: JÁNOS SZÉPVÖLGYI, C.Sc.

Main fields of research: Materials chemistry, electrochemistry and corrosion, environmental and analytical chemistry.

> Computer and Automation Research Institute

Address: H-1111 Budapest, Kende u. 13/17 Mail: H-1518 Budapest, PO.Box 63 Phone: (36-1) 209-5400 Fax: (36-1) 466-7503 Internet: www.sztaki.hu E-mail: peter. Director: PÉTER INZELT, C.SC.

Main fields of research: Computer science and technology, applied mathematics, automated control systems, artificial intelligence, analogical and neural computing, integrated design and control systems. Other activities include graduate and mailgraduate training.

## INSTITUTE OF ECOLOGY AND BOTANY

Address: H-2163 Vácrátót, Alkotmány u. 2/4 Phone: (36-28) 360-122 Fax: (36-28) 360-110 Internet: www.botanika.hu E-mail: borhidi@botanika.hu Director: ATTILA BORHIDI, O.M.

Main fields of research: Theoretical, basic and applied research in certain fields of ecology, botany and hydrobiology, such as organisation and dynamics of terrestrial plant communities and populations; hydrological research in streams and lakes; conservation biology; basic research for the protection of nature; new plant resources and their utilisation. The Institute is also in charge of the Vácrátót Botanical Gardens and acts as the Ecological Centre of four other research institutes of the Hungarian Academy of Sciences engaged in longterm ecological researches.

## INSTITUTE OF EXPERIMENTAL MEDICINE

Address: H-1083 Budapest, Szigony u. 43 Mail: H-1450 Budapest, P.O.Box 67 Phone: (36-1) 210-9400 Fax: (36-1) 210-9423 Internet: www.koki.hu E-mail: esvizi@koki.hu Director: E. SZILVESZTER VIZI, O.M.

Main fields of research: Basic biomedical research focused primarily on brain research, including studies on neurotransmission (using neuroanatomical, electrophysiological, neurochemical and pharmacological methods), on behaviour, epileptic and ischaemic brain damage and on the central and peripheral control of hormone secretion. Research teams use multidisciplinary approaches, combining traditional, well-established methods with the new technologies of cellular and molecular biology.

#### INSTITUTE OF NUCLEAR RESEARCH

Address: H-4026 Debrecen, Bem tér 18/C Mail: H-4001 Debrecen, P.O.Box 51 Phone: (36-52) 417-266 Fax: (36-52) 413-181 Internet: www.atomki.hu E-mail: rgl@atomki.hu Director: REZSŐ LOVAS, D.SC.

Main fields of research: Basic research in atomic and subatomic (nuclear and particle) physics; application of atomic and nuclear physics in other fields (applying Xray, electron and mass spectroscopy in chemical analysis, surface science, low-temperature physics, earth science, environmental, medical and biological research, etc.); solving related practical problems; development of techniques and instruments for these fields; participation in higher education.

## KFKI ATOMIC ENERGY RESEARCH INSTITUTE

Address: H-1121 Budapest, Konkoly Thege u. 29/33 Mail: H-1525 Budapest 114., P.O.Box 49 Phone: (36-1) 395-9159 Fax: (36-1) 395-9293 Internet: www.kfki.hu/~aekihp/ E-mail: gado@sunserv.kfki.hu Director: JÁNOS GADÓ, D.SC.

Main fields of research: Reactor physics; thermo-hydraulics; fuel studies; examination of serious accident processes; development of control systems for atomic energy power plants; rector simulation, materials research activation analysis; neutron radiography; radiation protection; investigation of condensed materials.

## KFKI Research Institute for Particle and Nuclear Physics

Address: H-1121 Budapest, Konkoly Thege u. 29/33 Mail: H-1525 Budapest 114., P.O.Box 49 Phone: (36-1) 395-9289 Fax: (36-1) 395-9151 Internet: www.rmki.kfki.hu E-mail: szego@rmki.kfki.hu Director: KÁROLY SZEGŐ, D.SC. Main fields of research: Basic research in high-energy nuclear and particle physics, plasma physics, space physics, theoretical investigations; applied research and development in the field of laser techniques, nuclear analysis, space electronics, fast data processing, and optical and X-ray spectroscopy.

## PLANT PROTECTION INSTITUTE

Address: H-1022 Budapest, Herman Ottó út 15 Mail: H-1525 Budapest, P.O.Box 102 Phone: (36-1) 355-8722 Fax: (36-1) 356-3698 Internet: www.nki.hu E-mail: tkom@nki.hu Director: TAMÁS KŐMÍVES, D.Sc.

Main fields of research: Basic research in the fields of plant patho-physiology, physiological and molecular aspects of plant disease resistance, biotechnology, taxonomy of insects, insect physiology, insect ecology and ecotoxicology, chemical aspects of pest control.

Research teams are also involved in applied research and innovation projects as well as in teaching in graduate schools.

## "Rényi Alfréd" Mathematical Institute

Address: H-1053 Budapest, Reáltanoda u. 13/15 Mail: H-1364 Budapest, P.O.Box 127 Phone: (36-1) 483-8300 Fax: (36-1) 483-8333 Internet: www.renyi.hu E-mail: ohkatona@renyi.hu Director: GYULA KATONA, O.M.

Main fields of research: Algebra, algebraic logic, approximation theory, differential equations, functional analysis, combinatorics, theoretical computing, cryptography, information theory, probability theory, mathematical statistics, number theory, geometry.

## RESEARCH CENTRE FOR EARTH SCIENCES (RCES)

Address: H-1112 Budapest, Budaörsi út 45 Mail: H-1502 Budapest, P.O.Box 132 Phone: (36-1) 319-3119 Fax: (36-1) 319-3145 E-mail: panto@sparc.core.hu General Director: GYÖRGY PANTÓ, O.M.

## RCES GEODETICAL AND GEOPHYSICAL RESEARCH INSTITUTE

Address: H-9400 Sopron, Csatkai E. u. 6/8 Mail: H-9401 Sopron, P.O.Box 5 Phone: (36-99) 508-340 Fax: (36-99) 508-355 Internet: www.ggki.hu E-mail: zavoti@ggki.hu Director: JóZSEF ZÁVOTI, C.Sc.

Main fields of research: Geodynamics; GPS; gravitation modelling; linear and non-linear geodetical problems; DIN and GIS; development of geodetic and geophysical methods and instruments and their standardisation; magnetosphere; ionosphere; the Schuman resonance, Sun-Earth physical relations; geomagnetic pulsations; space meteorology, electromagnetic investigation of the Carpathian-Pannonian region; seismology of deep layers; earthquake risks. The Institute has a database of earthquakes.

## RCES GEOGRAPHICAL RESEARCH INSTITUTE

Address: H-1112 Budapest, Budaörsi út 45 Mail: H-1388 Budapest, P.O.Box 64 Phone: (36-1) 309-2628 Fax: (36-1) 309-2690 Internet: www.miwo.hu/partner/mtafki/ E-mail: schweitf@helka.iif.hu Director: FERENC SCHWEITZER, D.SC.

Main fields of research: Geomorphological and natural geographical investigations underlying the safe storing of materials of low and medium radiation; complex geomorphological investigation of surface development of the Hungarian Danube Valley; exploration of the palacogeographic relations of the Carpathian Basin; development of Integrated Space Informatics Systems and their applications to sample areas; development of models for forecasting soil erosion and surface development; socio-geographic study of the Carpathian Basin; comparative geographical investigation of urban development in Central Europe; examination of the changes in the spatial structure of Hungarian industry; sociogeographic investigation of the metropolitan livingspace (Lebensraum).

## RCES LABORATORY FOR GEOCHEMICAL RESEARCH

Address: H-1112 Budapest, Budaörsi út 45 Mail: H-1502 Budapest, P.O.Box 132 Phone/Fax: (36-1) 319-3137 Internet: www.core.hu/geochem/index.htm E-mail: arkai@sparc.core.hu Director: PÉTER ÁRKAI, C.M.

Main fields of research: Mineralogy and geochemistry of rare earth metals; development of the taxonomy and methodology of low temperature metamorphosis; investigation of the formation of magmatic rocks and the related formation of raw materials; complex coalmineralogical and coal-geochemical investigations of Hungarian brown coals; geochemistry; investigation of bioessential trace elements; isotope-geochemical examination of drinking water and thermal spring bases.

## Research Institute for Soil Science and Agricultural Chemistry

Address: H-1022 Budapest, Herman O. u. 15 Mail: H-1525 Budapest, P.O.Box 35 Phone: (36-1) 356-4644 Fax: (36-1) 356-4682 Internet: www.taki.iif.hu E-mail: nemeth@rissac.hu Director: TAMÁS NÉMETH, C.M.

Main fields of research: Basic research in soil science, agrochemistry and soil biology. The Institute's activities in these fields also include significant applied research and experimental development, graduate training by mail, advisory and information activities, as well as extensive national and international co-operation. The Institute co-operates in several national and international programmes (e.g., Inco-Copernicus, NATO SP, EU Fifth Framework Programme, PHARE, etc.).

# Research Institute for Solid-state Physics and Optics

Address: H-1121 Budapest, Konkoly-Thege M. u. 29/33 Mail: H-1525 Budapest, P.O.Box 49 Phone: (36-1) 392-2212 Fax: (36-1) 392-2215 Internet: www.szfki.hu E-mail: szfki@szfki.hu Director: JÁNOS KOLLÁR, D.SC.

Main fields of research: Basic research in the field of theoretical and experimental solid-state physics, including the physics of condensed materials, metals, thin films and surfaces, and also in the field of theoretical and experimental optics, including the physics of optical crystals, nonlinear and quantum optics, as well as laser physics; applied research, including the development, study and applications of specific new materials, new test methods, new optical crystals, thin-film devices and lasers; development of unique research methods (neutron scattering, neutron and gamma-radiography, NMR, X-ray diffraction, Mössbauer-spectroscopy, ultra-short laser pulses).

## Research Institute for Technical Physics and Material Science

Address: H-1121 Budapest, Konkoly Thege út 29/33 Mail: H-1525 Budapest 114, P.O. Box 49 Phone: (36-1) 392-2225 Fax: (36-1) 392-9226 Internet: www.kfki.hu/mfahp E-mail: gyulai@mfa.kfki.hu Director: József GyuLAI, O.M.

Main fields of research: Basic research in the field of semiconductors, metals, including magnetic materials; applied research in sensing devices (semiconductor, magnetic and optical type), and in ceramics. Other fields of activity include special computer programmes and training on both undergraduate and graduate levels.

#### VETERINARY MEDICAL RESEARCH INSTITUTE

Address: H-1143 Budapest, Hungária krt. 21 Mail: H-1581 Budapest, P.O.Box 18 Phone: (36-1) 252-2455 Fax: (36-1) 252-1069 Internet: www.vmri.hu E-mail: harrach@novell.vmri.hu Director: BALÁZS HARRACH, C.SC.

Main fields of research include the investigation of the viral, bacterial and parasitic diseases of farm animals, and molecular biological research in these areas. In basic research particular attention is given to molecular and genetic aspects. Researches are conducted under virology, bacteriology and mycoplasma, and fish parasitology projects. The Institute is also engaged in Mailgraduate and graduate training.

# INSTITUTES FOR SOCIAL SCIENCES AND THE HUMANITIES

ARCHAEOLOGICAL INSTITUTE

Address: H-1014 Budapest, Úri u. 49 Mail: H-1250 Budapest, P.O.Box 14 Phone: (36-1) 375-9011 Fax: (36-1) 356-4567 Internet: www.archeo.mta.hu E-mail: balint@archeo.mta.hu Director: CSANAD BALINT, C.M.

Main fields of research: Archaeological research and related natural science research from the Neolithic to the late Mediaeval Period, within this, the main research topics include the archaeological topography of Hungary; archaeological investigations in the Roman Empire and its provinces, the Avars, the Magyars and their neighbours; mediaeval researches; microregional research programmes including settlement research.

**CENTRE FOR REGIONAL STUDIES (CRS)** 

Address: H-7621 Pécs, Papnövelde u. 22 Mail: H-7601 Pécs, P.O.Box 199 Phone: (36-72) 210-390 Fax: (36-72) 233-704 Internet: www.rkk.hu E-mail: horvath@dti.rkk.hu Director: GYULA HORVÁTH, D.Sc.

As the central institution of four research institutes, the Centre for Regional Studies (CRS) is responsible for complex social science researches with regional relevance, specifically, research on long-term Hungarian and international processes of regional and urban development, the globalising (European, Euro-regional, East-Central-European, Hungarian) spatial structures, their division of labour, their system of institution and tools; decisions concerning regional development in Hungary and the country's accession to the European Union. The Centre's research units are listed below.

#### CRS West-Hungarian Research Institute

Address: H-9002 Győr, Liszt Ferenc u. 10 Mail: H-9002 Győr, P.O.Box 420 Phone: (36-96) 516-570 Fax: (36-96) 516-579 Internet: www.rkk.hu E-mail: rechn@edo.rkk.hu Director: JÁNOS RECHNITZER, D.Sc.

Main fields of research: Survey of the spatial spreading of innovation; analysis of regional financial and income processes; study of the Vienna-Bratislava-Gyor regional co-operation; comparative analysis of success regions and cities; regional development concept and strategy for Northern Transdanubia.

#### CRS TRANSDANUBIAN RESEARCH INSTITUTE

Address: H-7621 Pécs, Papnövelde u. 22 Mail: H-7601 Pécs, P.O.Box 199 Phone: (36-72) 212-755 Fax: (36-72) 233-704 E-mail: palne@dti.rkk.hu Director: PÁLNÉ ILONA KOVÁCS, D.SC.

Main fields of research: Survey of Hungarian and international regionalism, regional development and policy in Europe; the institutional system of public adminis-

tration and regional development; methodology of regional development programming; regional requirements of sustainable development; complex survey of infrastructural systems and networks; regional development strategy for Southern Transdanubia; analysis of the development of the Alpine-Adriatic region.

# CRS Great Plain Research Institute

Address: H-6000 Kecskemét, Rákóczi u. 3 Mail: H-6001 Kecskemét, P.O.Box 261 Phone: (36-76) 502-840 Fax: (36-76) 502-849 Internet: www.rkk.hu/ati E-mail: csatbal@rkk.hu Director: BÁLINT CSATÁRI, C.SC.

Main fields of research: Study of the economic, societal and environmental renewal of the Great Hungarian Plain; methodology of microregional researches; rural development strategies; development concept and strategy fore the Great Hungarian Plain; survey of the Carpathian Euro-region and the Tisza-Maros-Danube co-operation.

> CRS CENTRAL AND NORTH Hungarian Research Institute

Address: H-1014 Budapest, Úri u. 49 Mail: H-1538 Budapest 114, P.O.Box 527 Phone: (36-1) 212-9525 Fax: (36-1) 212-9526 E-mail: h10136bar@ella.hu Director: GYÖRGYI BARTA, C.Sc.

Main fields of research: Study of the regional structure of urban network and of society; analysis of the spatial structure of urban network and urban functions; survey of Budapest and its agglomeration in international comparison; development strategy for Northern Hungary.

CENTRE FOR THE SOCIAL SCIENCES

Address: H-1014 Országház u. 30. Mail: H-1399 Budapest, P.O. Box 694/120 Phone: (36-1) 355-7649 Fax: (36-1) 356-1539 E-mail: h5942pok@ella.hu Director: ATTILA Pók C.Sc.

> INSTITUTE FOR THE STUDY OF ETHNIC-NATIONAL MINORITIES

Address: H-1014 Budapest, Országház u. 30 Mail: H-1399 Budapest, Pf. 694/121 Phone: (36-1) 224-6795 Phone/Fax: (36-1) 224-6793 E-mail: sza859@mail.iif.hu Director: LáSZLÓ SZARKA, C.SC.

# INSTITUTE OF ART HISTORY

Address: H-1014 Budapest, Úri u. 49 Mail: H-1250 Budapest, P.O.Box 27 Phone: (36-1) 375-9011, 224-6700, 375-0493 Fax: (36-1) 356-1849 Internet: www.arthist.mta.hu E-mail: lbeke@arthist.mta.hu Director: LáSZLÓ BEKE, C.SC.

Main fields of research: Research on the history, sources and monuments of art in Hungary from the beginnings to date; investigations concerning art theory, methodology and the history of art studies; activity concerning resources of Hungarian art. The Institute is also in charge of the Art Collection of the Hungarian Academy of Sciences.

# INSTITUTE OF ECONOMICS

Address: H-1112 Budapest, Budaörsi út 45 Mail: H-1502 Budapest, P.O.Box 262 Phone: (36-1) 309-2600, 309-2651 Fax: (36-1) 319-3136 Internet: www.econ.core.hu E-mail: koltay@econ.core.hu Director: JENŐ KOLTAY, C.Sc.

The Institute is committed to international standards of fundamental and applied research in economics, focusing on the analysis of modern market economy and the transition-related issues of Hungarian economy. Main fields of research: Microeconomics and economic policy; public and institutional economics; human resources; microeconomics and sectoral economics; mathematical economics, historical investigations in economic thought, and dissemination of research output.

#### INSTITUTE OF ETHNOLOGY

Address: H-1014 Budapest, Országház u. 30 Mail: H-1250 Budapest, P.O.Box 29 Phone: (36-1) 356-6167 Fax: (36-1) 375-9764 Internet: www.neprajz.mta.hu E-mail: paladi@neprajz.mta.hu Director: ATTILA PALÁDI-KOVÁCS, C.M.

Main fields of research: Systems of folk beliefs and customs; archaic folklore genres; the role of literature in folklore, social anthropology (including comparative researches); tradition, identity and national symbols, historical ethnography; non-European researches (Hungarian ethnogenesis, history and ethnography of Finno-Ugrian peoples, and other ethnological investigations), works on the *Encyclopaedia of Uralic Mythology* and the eight-volume handbook titled *Hungarian Ethnography*.

#### INSTITUTE OF HISTORY

Address: H-1014 Budapest, Úri u. 51-53. Mail: H-1250 Budapest, P.O.Box 9 Phone: (36-1) 355-8084 Fax: (36-1) 356-6373 Internet: www.tti.hu E-mail: gabi@history.mta.hu Director: ZOLTÁN SZÁSZ, C.SC.

Main fields of research: The mediaeval Hungarian state; economic and social development in the three parts of Hungary during Turkish occupation in the 16th-17thcenturies; Hungary in the Habsburg Empire; minorities in Hungary and Hungarian minorities in the neighbouring countries; social history of the "age of Kádár" (1956-1989). The Institute also edits and publishes historical sources and manuals.

#### INSTITUTE OF LEGAL STUDIES

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Research at the Institute covers a wide range of legal topics, including administrative law, civil law, comparative law, constitutional law, European law, international public and private law, criminal law, legal philosophy of law, environmental law. Main fields of research: European law and the Hungarian legal system; current issues of business law and private law, environmental law; rule of law and the Hungarian legal order; the European system of protection of fundamental and human rights; and the general questions of the theory of the legal system.

#### INSTITUTE FOR LINGUISTICS

Address: H-1068 Budapest, Benczúr u. 33. Mail: H-1399 Budapest, PO.Box 701/518 Phone: (36-1) 351-0413 Fax: (36-1) 322-9297 Internet: www.nytud.hu E-mail: kiefer@nytud.hu Director: FERENC KIEFER O.M.

Main fields of research: Synchronic and diachronic development of the Hungarian language; researches in theoretical and applied linguistics. Within this, main research areas include works on the *Historical Grammar* of Hungarian; survey of spoken Hungarian, speech synthesis; speech perception and comprehension; the structural grammar of Hungarian; children's language; neuro-linguistics; works on *The Hungarian Dictionary* of *Dialect Vocabulary, Uralic Etymological Archives*; researches are also conducted in theoretical linguistics.

#### INSTITUTE OF LITERARY SCHOLARSHIP

Address: H-1118 Budapest, Ménesi út 11/13 Phone: (36-1) 385-8790 Fax: (36-1) 385-3876 Internet: www.iti.mta.hu E-mail: szor@iti.mta.hu, mol@iti.mta.hu Director: LáSZLÓ SZÖRÉNYI, D.SC.

Main fields of research: History of Hungarian literature from the beginnings to the present; literary theory; history of literary criticism; Central and East European lit-

erature; textology. The Institute is also engaged in editing reference books and bibliographies, in publishing reviews, critical editions and source studies in Hungarian literature.

#### INSTITUTE FOR MUSICOLOGY

Address: H-1014 Budapest, Táncsics Mihály u. 7 Mail: H-1250 Budapest, PO.Box 28 Phone: (36-1) 356-6858 Fax: (36-1) 375-9282 Internet: www.zti.hu E-mail: director@zti.hu Director: TIBOR TALLIÁN, C.SC.

Main fields of research include all areas of Hungarian music history, and various areas of general music history; ethnomusicology and ethnochoreology (Hungarian and European folk music and folk dance). Its other responsibilities include the maintenance and enlargement of primary collections hosted by the Institute such as the Hungarian Folk Music and Folk Dance Archives, the Bartók Archives, and the Museum of Music History.

#### INSTITUTE OF PHILOSOPHY

Address: H-1054 Budapest, Szemere u. 10 Mail: H-1398 Budapest, P.O.Box 594 Phone/Fax: (36-1) 312-0243 Internet: www.phil-inst.hu E-mail: office@phil-inst.hu, nyiri@elender.hu Director: JÁNOS KRISTÓF NYÍRI, O.M.

Main fields of research: Information society, social philosophy, history of philosophy, philosophy of religion. Researches are also going on under the following special projects: the changing function of European universities, screen pedagogy, trends in global networking and controlling the NET. The Institute also serves as a scientific background for UNIWORLD, a virtual university, based on studies in the history of universities and on the achievements of the Institute's studies on information society.

#### INSTITUTE FOR POLITICAL SCIENCES

Address: H-1014 Budapest, Országház u. 30 Mail: H-1399. P.O. Box 694/115 Phone: (36-1) 375-9011, 224-6700 Fax: (36-1) 224-6725 Internet: www.mtapti.hu E-mail: bayer@mtapti.hu Director: József BAYER, D.Sc.

Main fields of research: Political theory; political institutions; research in the field of security and defence policies; parties, party systems and the articulation of Hungarian society; elections – electoral behaviour; interrelationships of political and societal group formation; political culture; ethnic and regional structure.

#### INSTITUTE FOR PSYCHOLOGY

Address: H-1132 Budapest, Victor Hugo u. 18/22 Mail: H-1394 Budapest, P.O.Box 398 Phone: (36-1) 350-0555 Fax: (36-1) 239-6727 Internet: www.mtapi.hu E-mail: czigler@cogpsyphy.hu Director: István CZIGLER, D.Sc.

Main fields of research: The study of elementary information processing; analysis of the development of cognitive processes and brain mechanisms underlying the cognitive processes in human and animal experiments; determinants of mental development in the early stages of the socialisation process; the role of psychological processes in effective education; processes underlying the decision processes; cognitive constructs in the control of social behaviour, text comprehension and communication; psychological mediation and representation of social processes.

#### INSTITUTE OF SOCIOLOGY

Address: H-1014 Budapest, Úri u. 49 Mail: H-1250 Budapest, P.O.Box 20 Phone: (36-1) 224-6740 Fax: (36-1) 224-6741 E-mail: h8756tam@ella.hu Director: PÁL ТАМÁS, C.SC.

Main fields of research: Research into the reproduction processes of poverty and deprivation; integration of Roma (Gypsy) groups into Hungarian society; operation of the non-profit sector; reconstruction of the national innovation system; relationship between environmental protection and society.

#### INSTITUTE FOR WORLD ECONOMICS

Address: H-1014 Budapest, Országház u. 30 Mail: H-1531 Budapest, PO.Box 936 Phone: (36-1) 224-6760 Fax: (36-1) 224-6761 Internet: www.vki.hu E-mail: ainotai@vki.hu Director: ANDRÁS INOTAI, D.SC.

Main fields of research: The study of trends and factors behind international economic development (including

the role of the United States in the world economy) and their present and future impact on Hungarian economy. Further research priorities include: economic development in Europe, with special attention to the European Union and eastern enlargement; economic transformation in Central and Eastern Europe; comparative analysis of CEFTA countries, new economic developments in Japan, East and Southeast Asia; the experience of Hungarian national programmes of economic modernisation in international comparison; microlevel adjustment and co-operation; the role of infrastructure and services in the modernisation process; the future of national and EU agricultural policies; critical issues of the welfare state; the impact of socio-economic values on the pattern of development; sectoral studies.

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"Laboratory for Biological Databases" Research Group H-8200 Veszprém, P.O.Box 158 Head: T. ATTILA SZABÓ, D.SC. (biology)

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"Animal Ecology" Research Group H-1082 Budapest, Ludovika tér 2 Head: LÁSZLÓ PAPP, O.M.

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"Information Science and Scientometrics" Research Group H-1051 Budapest, Arany János u. 1 Head: TIBOR BRAUN, D.SC. (chemistry)

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"Archives of Sigismund's Age" Research Group H-1014 Budapest, Úri utca 54-56 Head: IVÁN BORSA, D.SC. (history)

AT THE NATIONAL SZÉCHÉNYI LIBRARY, BUDAPEST

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"The History of the 1956 Hungarian Revolution" Research Group H-1410 Budapest, P.O.Box 218 Head: EMIL PALOTÁS, D.SC. (history)

At the Research Institute of Demography of the Central Statistical Office

"Demographic Methodology" Research Group H-1525 Budapest, P.O.Box 51 Head: TAMÁS FARAGÓ, D.SC.

# OTHER INSTITUTIONS OF THE HUNGARIAN ACADEMY OF SCIENCES

These institutions perform special tasks and render special scientific, technical, administrative, information and other services. They are:

The Library of the Hungarian Academy of Sciences, Institute for Research Organisation, The Art Collection of the Academy, The Office for International Co-operation, The Academy's Club, The Scientists' Club.

> THE LIBRARY OF THE HUNGARIAN ACADEMY OF SCIENCES

H-1051 Budapest, Arany János u. 1 Post: H-1345 Budapest, P.O.Box 1002 Phone: (36-1) 338-2344 Fax: (36-1) 331-6954 Internet: www.w3.mtak.hu E-mail:mtak@vax.mtak.hu Deputy director general: ALOJZIA DOMSA

One of the country's largest information centres, founded in 1826, the Library of the Hungarian Academy of Sciences holds over one million volumes of books, almost 290,000 volumes of Hungarian and foreign periodicals, some 600,000 manuscripts, 22,000 microfilms. The Oriental Collection of international renown and the Department of Manuscripts and Old Books deserve special mention. In addition to the main library, the Academy's research institutes and centres also maintain special libraries, some of which are of national importance in their particular fields of learning.

#### INSTITUTE FOR RESEARCH ORGANISATION

H-1051 Budapest, Nádor u. 18 Post: H-1245 Budapest, P.O.Box 994 Phone: (36-1) 331-3161 Fax: (36-1) 269-5195 Internet: www.mtakszi.iif.hu E-mail: h338tol@ella.hu Director: MÁRTON TOLNAI, C.SC.

The Institute's current responsibilities include to render scientific and administrative services to the Academy's high officials and leading bodies; research in science and technology policies in international comparison with a special view to the East-Central-European countries.

Its current services include the preparation of working papers and other documents for use by the high officials and committees of the Academy; providing expert advice to other national R&D policy bodies and agencies; maintaining and updating databases of the Academy's information system.

Current research projects include the analysis and comparative study of science and technology policies in Hungary and various other countries.

#### THE ART COLLECTION OF THE ACADEMY

H-1051 Budapest, Roosevelt tér 9 Tel.: (36-1) 338-2344 Head of Collection: JÚLIA SZABÓ, C.SC.

The Art Collection, located in the exhibition rooms of the former Esterházy Gallery on the third floor of the Academy, contains portraits, landscapes, historical genre paintings, archaeological drawings, as well as the noted 19th–century gynaecologist Gyula Elischer's Goethe Collection, and the fine art objects of the Széchenyi Museum. The richest donation to this collection was made by Count István Széchenyi. (Some pieces of the Collection now adorn the palace rooms.) The Art Collection is managed by the Institute of Art History of the Academy.

OFFICE FOR INTERNATIONAL CO-OPERATION

H–1051 Budapest, Nádor u. 7 Post: 1245 Budapest. P.O.Box 994 Tel/fax: (36–1) 317–2875 E-mail: jpusztai@office.mta.hu Director: JÁNOS PUSZTAI, C.SC.

The main responsibilities of the Office are: to participate in the organisation, preparation and execution of the Academy's bilateral agreements on scientific cooperation; to create the conditions for participation in non-governmental scientific organisations (NGOs); to keep records on such memberships and membership fees; to organise conferences and other meetings of international character in Hungary; to make the operative arrangements necessary for provisional scientific missions abroad, as well as for participation in conferences abroad; to organise the reception of foreign researchers.

THE ACADEMY'S CLUB ASSOCIATION

H–1051 Budapest, Roosevelt tér 9 Tel. (36–1) 338 2344 The Academy's Club is an independent legal entity within the organisation of the Academy, working on the principle of self-government. Its objective is to provide high-quality services for the most important actors of Hungarian scientific and economic life. The Club offers a nice environment for arranging meetings to promote the dialogue between the leading representatives of the Hungarian scientific community and social-economic life. It is also a convenient place for holding workshop meetings, discussions, and the scene of outstanding cultural programmes, including concerts. Its membership includes members of the Hungarian Academy of Sciences, members of the Széchenyi Academy of Arts, outstanding Hungarian scientists and scholars living abroad, as well as those members of the Academy's Public Chamber who hold a degree.

Leading officials of the Club's governing body: Chairman: FERENC GLATZ, O.M. Co-chairmen: SÁNDOR DEMJÁN PÉTER HUSZTI

> THE SCIENTISTS' CLUB (OF THE HUNGARIAN ACADEMY OF SCIENCES)

H-1051 Budapest, Roosevelt tér 9 Tel.: (36-1) 382-344

On the first floor of the Academy's Palace, the beautifully furnished and finely decorated premises of the Scientists' Club serves several purposes. In addition to functioning as a normal club, workshop meetings and discussions, even small conferences, and, occasionally, chamber-concerts are also held there.

# OFFICIAL PUBLICATIONS OF THE HUNGARIAN ACADEMY OF SCIENCES

Aside from scientific books and journals published or sponsored by the Academy and its research network, there are three so-called "official" periodicals as well, namely:

#### MAGYAR TUDOMÁNY (HUNGARIAN SCIENCE)

Editorial Office: H–1051 Budapest, Nádor u. 7 Tel/fax: (36–1) 317–9524 E-mail: matud@helka.iif.hu Editor-in-chief: VILMOS CSÁNYI, O.M. Managing editor: LÁSZLÓ ELEK

A monthly journal which keeps track of and reports on international advancement, and particularly Hungarian achievements, in science and scholarship. It reports on the science policy and corporate activities of the Hungarian Academy of Sciences as the Public Chamber of the Hungarian scientific community, and serves as a forum for Hungarian scientists and scholars for expressing their views on scientific and science policy matters.

#### Akadémia

(MAGAZINE OF THE HUNGARIAN ACADEMY OF SCIENCES)

Editorial office: H-1051 Budapest, Roosevelt tér 9 Tel/fax: (36-1) 302-5638 Responsible editor: B. ISTVÁN SZABÓ, PH.D. Editor: KORNÉLIA BURUCS

The quarterly news magazine *Akadémia* supplies detailed information on the activities of the Academy's leading and other bodies, R&D centres, institutes and groups, and on scientific and other meetings. It also covers personal and other news concerning the Academy's institutional life.

Akadémiai Értesítő (Official Gazette of the Academy)

Editorial office: H-1051 Budapest, Nádor u. 7 Phone: (36-1) 322-9527 E-mail: demcsik@office.mta.hu Editor: TAMÁS DEMCSIK

The Academy's monthly gazette, edited by the Secretariat of the Hungarian Academy of Sciences. It publishes science and technology related and other relevant legislation by Parliament, government decrees and other legal rules. Its duties include the publication of the official texts of decisions and other rulings by the Academy's leaders and leading bodies. It also contains other official communication concerning the research network of the Academy, the awarding of degrees and announcements of grant competitions. The Presidents of the Academy



Count József Teleki (1830–1855)



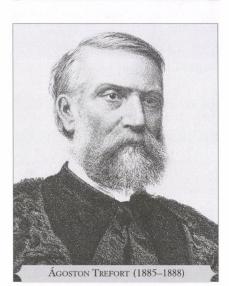
Count Emil Dessewffy (1855–1866)

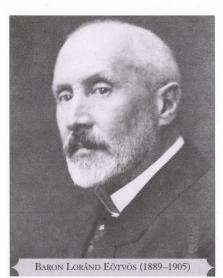


BARON JÓZSEF EÖTVÖS (1866–1871)



Count Menyhért Lónyay (1871–1884)





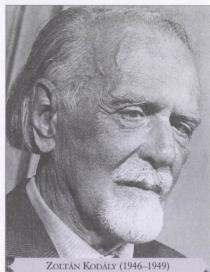
ALBERT BERZEVICZY (1905–1936)







GYULA MOÓR (1945–1946)





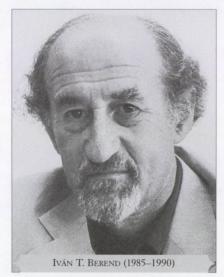
István Rusznyák (1949–1970)



TIBOR ERDEY-GRÚZ (1970–1976)



János Szentágothai (1976–1985)





Domokos Kosáry (1990–1996)

79



FERENC GLATZ (1996-2002)

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