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**La 801**

LATVIAN ACADEMY OF SCIENCES

Akadēmijas laukums 1  
Rīga, LV 1050  
Latvia

Tel.: (371)7225361 Fax: (371)7821153  
E-mail: lza@lza.lv  
<http://www.lza.lv>

The 2006–2007 Latvian Academy of Sciences (LAS) Yearbook is a follow-up edition—already the eleventh one under this title. The previous issues reflected the situation in 1991, 1992, 1994, 1995, 1996, 1997, 1998/1999, 2000/2001, 2002/2003, and 2004/2005.

The Yearbook consists of the main part and the Appendix. The main part includes the principal documents of the Latvian Academy of Sciences, basic information on the Academy, its structure and members, surveys of activities in 2005–2006. Appendix contains brief information on Latvia's science and research institutes.

The contents of the Yearbook are also available on the Website of the LAS (<http://www.lza.lv>).

All data of the Yearbook are given to 15 March 2007.

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## PREFACE

Since 2004, Latvia's science like Latvia herself has become a full-fledged member of *the EU research area*. In 2006, the *Latvian National Development Plan* and the operational programmes for mastering EU structural funds in the period 2007–2013 were worked out, anticipating essential development of science including new financing mechanisms. In 2005, the Sub-Commission for Science of the Commission of Strategic Analysis, created by the President of the State, completed the job on the *draft Strategy for Latvia's Science, Technological Development, and Innovations*.

In 2006, the *Law on Scientific Activity*, passed in 2005, started its full operation and the Cabinet of Ministers adopted several new regulations, rules, and directions in accordance with the given law.

The year 2006 for Latvia's science was a year when, in accordance with the *Law on Scientific Activity*, funding from the state budget grew by 0.15% of the GDP. Funding of science in the higher education establishments and state programmes was increased, and realisation of the basic funding was partly initiated. In 2006, Latvia's science received 75 million euros in total, from different sources. In 2007, approximately 75 million euros will be added to the funding of science from the structural funds of the EU. Funding from the state budget in 2007 will grow by 0.15% of the GDP. All the means will be directed towards complete coverage of state programmes and for the realisation of the basic funding. Essential additional funding allows to activate the scientific work in Latvia and to attract young scientists.

In 2005–2006, the *priorities of Latvia's science for the nearest period* were set up and implemented in the financing mechanisms. Information technologies, materials sciences, biotechnologies and pharmacy, pulp technology and national humanities (Lettonics or Latvian Studies) had been fixed as the priorities already earlier. Now, the priorities for the period 2006–2010 include also agricultural biotechnology, medicine, power engineering, and environ-

ment. To ensure the optimum utilisation of the 1+2% funding of the Lisbon strategy it is necessary to develop the system of Doctoral and Post-Doctoral studies and to involve all kinds of working force in scientific and technological elaborations. Development of different science and competence centres and parks, technological switching centres has been started and should actively go on since it is a remarkable opportunity to realise the link with entrepreneurship. Special funding is essential for national humanities setting them apart from the applied sciences. A special additional funding has been achieved for the programme of Latvia Studies co-ordinated by the Latvian Academy of Sciences. The 2nd Congress of Latvian Sciences will be held in October 2007.

*What is the present role of the Academy of Sciences in Latvia?* 15 years ago—on 14 February 1992—the reorganisation process of the Latvian Academy of Sciences was started with the adoption of the Charter and the new Statute. Now it can be considered as basically completed. The Latvian Academy of Sciences has found a stable place in the organisational system of Latvian science and is performing the chosen mission of a classical-type academy of sciences of Western Europe. The Academy unites its full members and corresponding members—208 distinguished scientists of Latvia. Altogether 52 prominent figures of culture and education have been elected as honorary members of the Academy. As the foreign members, the Academy has elected 92 renowned foreign scientists, many of whom are of Latvian origin. Therefore, we may freely say that the Latvian Academy of Sciences unites both the local intellectual potential of Latvia and that of the residents of other countries, who are connected with Latvia's science. Accordingly, the Latvian Academy of Sciences unites the highest official contingent of science experts in Latvia.

For Latvia's scientists (both members of the LAS and other scientists) the Latvian Academy of Sciences is traditionally the venue of discussions on significant science issues. Discussions take place at the meetings of the Academy and its divisions, at conferences, as well as in different commissions and working groups. Recently (and particularly in 2004–2006), the Latvian Academy of Sciences has been focusing not only on definite science issues, but also on the problems of science, technology, and innovation in whole, thus paying greater attention to the problems of applied science. Our work should ensure that the conclusions made by the Academy of Sciences are supported

by the Saeima and the Cabinet of Ministers and by ministries of the Republic of Latvia, and that the problems receive financial support.

A traditional field of activity of the academy is international relations of Latvia's science including both the bilateral co-operation and the representation in international organisations. Particularly close co-operation has been developed between the academies of sciences of the Baltic States and Nordic countries. In June 2006, the 10<sup>th</sup> Baltic Conference on Intellectual Co-operation was held in Helsinki, but in October 2007 the 11<sup>th</sup> conference will be held in Rīga.

While analysing the state of affairs in science, the Academy of Sciences is making expertise and evaluation of major contributions given by Latvia's scientists. The annual announcement of the principal accomplishments made by Latvia's science at the end of each year (on honours and recognitions in 2006 see p. 140) is receiving a notable response in public and mass media. Among other awards in science, Latvia's scientists give the top rate to the Grand Medal of the LAS. The scientific results achieved during the previous years have been marked with several other prizes and awards of the LAS, and many of them have been established together with large Latvian companies.



President of the Latvian Academy of Sciences

March 14, 2007

# PRINCIPAL DATES IN 2007 AND 2008

*2007*

12 April	LAS Spring General Meeting
9 October (in Rīga)	The 11 <sup>th</sup> Baltic Conference on Intellectual Co-operation.
22 November	LAS Autumn General Meeting Election of new LAS members

*2008*

3 April	LAS Spring General Meeting
20 November	LAS Autumn General Meeting

# BASIC DOCUMENTS

## CHARTER OF THE LATVIAN ACADEMY OF SCIENCES

Adopted at the General Meeting of the Latvian Academy of Sciences  
on 22 November 1996

Ratified by the Saeima (Parliament) on 23 January 1997

### GENERAL

The Latvian Academy of Sciences is a successor of several scientific associations which previously existed in Latvia. Its predecessors are the Kurzeme Society for Literature and Art, founded in 1815 in Jelgava and the Commission of Science, founded within the Rīga Latvian Society in 1869, which in 1932 was reorganised into the Science Committee with the status of a private academy of sciences.

Since 1919, the government of the Republic of Latvia had repeatedly considered the foundation of an official Latvian Academy of Sciences. In 1927, the idea was supported by Rainis, who was then Minister of Education. In 1935, the intention to create the Latvian Academy of Sciences was expressed in public by the Prime Minister K. Ulmanis, and on 14 January 1936, by the Cabinet's Act, the Institute of History of Latvia was founded as the first constituent part of this Academy.

In Latvia, the Academy of Sciences started its work on 14 February 1946, when academy members gathered for their first General Meeting. Scientists from the University of Latvia and the Latvian Academy of Agriculture formed the core of the Academy of Sciences. When adopting the Charter and the new Statute, by the decision of the General Meeting, adopted on 14 February 1992, the Latvian Academy of Sciences was reorganised into a classical academy which united elected members — prominent scientists and other scholars.

In the restored Republic of Latvia, the Latvian Academy of Sciences facilitates the development of sciences, carries out scientific research. It takes care that all special knowledge that Latvia and the Latvian people have given and can give to the world science and culture — national culture, language, folklore, literature, social and economic experience, traditions — are realised, studied, perfected, maintained, and passed over to the future generations. It studies and preserves the historical traditions of Rīga and regions of Latvia, shows the place of the Baltic countries in the world.

The Latvian Academy of Sciences has joined the international scientific community, collaborates with other academies of sciences and scientific organizations in Europe and the world.



## Article 1. LEGAL BASIS OF THE LATVIAN ACADEMY OF SCIENCES

In the Republic of Latvia, there is one Latvian Academy of Sciences as a centre of national importance, formed by the state. The Latvian Academy of Sciences is an autonomous legal entity which consists of elected members of the Latvian Academy of Sciences and which is subsidised by the state. The Latvian Academy of Sciences functions in accordance with its Charter and Statute. The Charter is adopted by the General Meeting of the Latvian Academy of Sciences and endorsed by the Saeima (Parliament) of the Republic of Latvia.

The Latvian Academy of Sciences may associate with scientific research institutions, societies, foundations, scientific technical organisations, universities, and higher educational institutions. Their collaboration with the Latvian Academy of Sciences is based on mutual agreement. In order to fulfill the goals of the Academy, groups of scientists or institutions are formed, which may function within the Latvian Academy of Sciences.

Members of the Latvian Academy of Sciences are elected prominent Latvian and foreign scientists, and honorary members — also universally recognised Latvian scholars of other spheres.

The Latvian Academy of Sciences is a legal entity. It observes the laws of the Republic of Latvia and international legal acts.

## Article 2. GOALS AND KEY DIRECTIONS OF THE LATVIAN ACADEMY OF SCIENCES

Goals and key directions of the Latvian Academy of Sciences are:

- to develop science, to facilitate and carry out studies in the sphere of basic and applied sciences, to promote the study and development of the history, culture, and language of the Latvian people and the state, as well as to support studies connected with the natural resources of Latvia, possibilities for their optimal utilisation and protection of environment;
- to prognosticate processes of Latvia's development, to report promptly to the government and the community about scientific forecasts on desirable and undesirable consequences of different economic, cultural and social processes and projects.

## Article 3. RIGHTS OF THE LATVIAN ACADEMY OF SCIENCES

The Latvian Academy of Sciences has the rights:

- to collaborate with institutions of higher education and scientific research organisational system, to delegate its representatives for work in these institutions;

- to receive information in the Saeima commissions, ministries, and other governmental institutions on preparation and modification of laws and regulations, which are related to science and higher education, as well as to express its opinion about these documents;
- to undertake initiative in the development of new scientific trends and scientific institutions which are connected with them;
- to award a degree of the *Dr. h. c. (Doctor honoris causa)* of the Latvian Academy of Sciences to Latvian and foreign scientists;
- to propose and adopt modifications in its Charter, to submit them for endorsement to the Saeima;
- to preserve in its archives, depositories, and libraries manuscripts and documents belonging to prominent people in science, literature, art, and other spheres of culture, as well as other materials important for science and history.

#### Article 4. OBLIGATIONS OF THE LATVIAN ACADEMY OF SCIENCES

The Latvian Academy of Sciences has the obligation:

- to take an active part in the development of science policy of Latvia and to promptly advise the Saeima and government in matters of science;
- to participate in scientific expertise of different governmental programmes, in stating the research level of studies, projects, programmes, and scientific institutions;
- to recognize excellence in science of Latvia (to award prizes for outstanding contribution in science of Latvia);
- to promote principles of self-government and democracy of science and scientists of Latvia, to protect these principles in governmental structures and the mass media;
- to care about involving of researchers of new generations into science and the social protection of the retired scientists, including the state emeritus ones;
- to protect, preserve, and perfect principles and traditions of scientific research ethics, discussion, to study problems of history of Latvian science;
- to care about publishing scientific literature, the scientific level of terminology and encyclopaedias in Latvia;
- to organise scientific congresses, conferences, open meetings of the Latvian Academy of Sciences, discussions, and competitions and to popularise achievements in science;
- to scientifically supervise the depositories of Latvian science and the national cultural heritage — Academic Library of Latvia, Misiņš Library, and the Depository of Latvian Folklore;

- to develop and encourage international contacts of Latvian scientists, to collaborate with other academies of sciences, scientific unions and associations, to maintain international scientific relations and to represent science of Latvia in international scientific organisations.

Annually the Latvian Academy of Sciences publishes a report on its activities.

#### Article 5. COMPOSITION AND MANAGEMENT OF THE LATVIAN ACADEMY OF SCIENCES

Composition of the Latvian Academy of Sciences is the following: full members (academicians), honorary members, foreign members, corresponding members. Their number, procedure of nominating and discussing candidates in the scientific community, as well as order of election is determined by the Statute of the Latvian Academy of Sciences.

The highest decision-making body of the Latvian Academy of Sciences is the General Meeting, in which elected full, honorary, foreign, and corresponding members take part. Matters pertaining to the Charter and the Statute and admittance of new members are decided by full members. In order to facilitate solving of interdisciplinary problems and contacts among representatives of allied sciences, members of the Academy form divisions of sciences of the Latvian Academy of Sciences. In between general meetings, the work of the Latvian Academy of Sciences is headed by the President, who is elected by its members, and the Senate.

The General Meeting of the Latvian Academy of Sciences elects the Supervisory Council. With the purpose to organise different spheres of work of the Latvian Academy of Sciences and to take prompt decisions, the Presidium, Board, and other organisational structures are formed. Composition and duties of these structures are determined by the Statute of the Latvian Academy of Sciences.

#### Article 6. ECONOMIC BASIS OF THE LATVIAN ACADEMY OF SCIENCES

The necessary financing for work of the Latvian Academy of Sciences is subsidised from the state budget. The Latvian Academy of Sciences submits a motivated application for the following year's financing together with the annual report, according to a procedure, determined by the government. The special budget of the Latvian Academy of Sciences is formed of resources which are obtained from:

- contractual works and entrepreneurial activity;
- managing of the property;
- donations and presents;
- other sources.

Under possession or property of the Latvian Academy of Sciences may be real estate or movables — land, buildings, and other property, which has been given over to it by the state institutions, or which it has obtained as a result of its activities or on other legal basis, as well as intellectual property, currency, and securities in Latvia and abroad.

Under the supervision of the Latvian Academy of Sciences are institutions and organisations, which are necessary for its work, as well as institutions and organisations which facilitate the functioning of science.

Administration of property, belonging to the Latvian Academy of Sciences, and objects, which are under its possession and supervision, is determined by the Statute of the Latvian Academy of Sciences.

#### Article 7. STATUTE OF THE LATVIAN ACADEMY OF SCIENCES

The General Meeting of members of the Latvian Academy of Sciences independently adopts and/or modifies its Statute which may not be in contradiction with the provisions of the present Charter.

# STATUTE OF THE LATVIAN ACADEMY OF SCIENCES

(Approved by Decision No. 7 of the General Meeting of the Latvian Academy of Sciences on 14 February 1992.

Changed by the decisions of the General Meetings of the Latvian Academy of Sciences of 24 November 1992, 11 February 1993, 18 February 1994, 21 November 1997, and 4 April 2002)

## Article 1. GENERAL PROVISIONS

1.1. The Latvian Academy of Sciences (LAS) is an autonomous legal subject which consists of elected members of the LAS and which is subsidised by the state. The Latvian Academy of Sciences functions in accordance with its Charter, which has been adopted by the General Meeting of the LAS and approved by the *Saeima* (Parliament) of the Republic of Latvia on 23 January 1997, and the present Statute. The *Saeima* of the Republic of Latvia or the Cabinet of Ministers may delegate special tasks and authorities to the LAS in the sphere of science.

Members of the LAS are elected prominent Latvian and foreign scientists, honorary members — universally recognised Latvian intellectuals of other spheres as well.

On contractual or associative basis, or in other legal forms, the Latvian Academy of Sciences may affiliate juridically independent scientific research institutions, societies, foundations, scientific technical organisations, universities, and other institutions of higher education. Their co-operation with the LAS is determined by mutual agreements. In order to implement the tasks of the LAS, groups of scientists or institutions may be formed, which may function within the Latvian Academy of Sciences, as well as experts from among scientists and specialists may be attached.

1.2. The Latvian Academy of Sciences is a legal entity. It observes laws of the Republic of Latvia and international laws and regulations.

1.3. The abbreviation of the Latvian Academy of Sciences is LZA (or LAS in English). Its name in other languages should be translated as follows: *Academia Scientiarum Latviensis* (in Latin), *Latvian Academy of Sciences* (in English), *Akadémie des Sciences de Lettonie* (in French), *Akademie der Wissenschaften Lettlands* (in German), *Латвийская Академия наук* (in Russian).

1.4. Location of the LAS is the city of Rīga. Juridical address of the LAS is: Akadēmijas laukums 1, Rīga, LV-1524, Latvia.

1.5. The symbols of the LAS are regulated by a special Statute. Colours of the LAS are white, cobalt blue, and gold. The small State Emblem of the Republic of Lat-

via and the words “Latvijas Zinātņu akadēmija — *Academia Scientiarum Latviensis*” appear on the LAS seal.

1.6. The Latvian Academy of Sciences marks October 14 as “The Day of the Academy,” since on 14 February 1946, members of the Academy gathered for their first General Meeting, and on 14 February 1992, the LAS adopted its Charter and new Statute.

## Article 2. TASKS AND PRINCIPLES OF WORK

2.1. The Latvian Academy of Sciences has the following tasks and key directions:

2.1.1. to carry out and encourage studies in basic and applied sciences;

2.1.2. to investigate the history of the Latvian people and the state; to study the culture, history, and prospects of Latvia; to encourage the investigation and perfection of the Latvian language; to assess natural resources of Latvia and possibilities for their optimal use; and to favour investigations connected with the protection of environment;

2.1.3. to forecast processes of the development of Latvia, to report promptly to the nation and Government about scientific forecasts on desirable and undesirable consequences of different processes in national economy, culture, and social procedures;

2.1.4. to develop a knowledge-based society and to promote the development of innovative technologies in Latvia;

2.1.5. to provide the highest quality scientific expertise; to give expert conclusions on principal questions for Latvia and the Baltic area;

2.1.6. to participate in working out national programmes and in regional programmes of the Baltics and the European Union, as well as in their implementation;

2.1.7. to take an active part in the development and implementation of Latvia’s science policy; to promptly advise the *Saeima*, President of the State, Government and their authorities on matters of science;

2.1.8. to enter into agreements or associative relations with scientific and professional societies, funds, unions, and associations of Latvia; to confer the name of the LAS to institutions associated with the LAS; to take part in the evaluation of the main research trends of these institutions if it is stipulated by a mutual agreement;

2.1.9. to develop an active co-operation with institutions of higher education of Latvia, to develop a single academic environment in Latvia and to take part in training the highest qualification scientists;

2.1.10. to encourage the publishing of scientific literature and encyclopaedias and increase their scientific level in Latvia;

2.1.11. to promote the development of Latvian scientific terminology;

2.1.12. to organise scientific congresses, conferences, open sessions of the LAS, and competitions, and to promote achievements of science;

2.1.13. to develop interdisciplinary studies, to initiate foundation of new scientific directions;

2.1.14. to co-operate with other academies of sciences, scientific associations, unions and societies; to maintain international scientific relations and represent science of Latvia in international scientific organisations;

2.1.15. to award prizes and scholarships of the LAS for works in science, including together with universities, other institutions of higher education and patrons of science, or other science-supporting organisations; to take part in recommending and deciding about international awards for works in science;

2.1.16. to evaluate the contribution and potential of scientists of Latvia and of foreign scientists connected with Latvia, and to recommend them for election as full, foreign, honorary, or corresponding members of the Academy;

2.1.17. to promote studies in the history of science of Latvia and in scientometrics ensuring the preservation and cultivation of scientific traditions;

2.1.18. to develop and perfect the Scientist's Code of Ethics and principles of scientific discussion;

2.1.19. to involve new generations of researchers into science;

2.1.20. social protection of the retired scientists (including the state emeritus ones) and support for their activities.

2.2. In order to realise tasks set in the Charter and in paragraph 2.1 of the present Statute, the LAS uses the work of its members and of institutions formed by the academy, promotes funding of separate scientific studies, scientific organisational and publishing activity.

### Article 3. MEMBERS OF THE LATVIAN ACADEMY OF SCIENCES

3.1. The Latvian Academy of Sciences consists of:

3.1.1. full members (academicians), among them no more than 100 under the age of 70;

3.1.2. honorary members (no more than 60 in total);

3.1.3. foreign members (no more than 100);

3.1.4. corresponding members (among them no more than 100 under the age of 70).

3.2. Members of the Latvian Academy of Sciences are elected according to the following procedure:

3.2.1. Full members of the LAS are elected scientists of Latvia whose investigations have earned wide recognition in Latvia and in the world. A scientist may be elected a full member of the LAS if he is under 70. An elected full member of the LAS over 70 is not included in the total number stipulated in paragraph 3.1.1, yet he maintains the vote in the convocations of the LAS.

3.2.2. Honorary members of the LAS are elected prominent figures of science, culture, national economy, education, and social sphere of Latvia or foreign countries, who reside and work in Latvia or who have close co-operation with Latvia and its science.

3.2.3. Foreign members of the LAS are elected outstanding scientists of the world who mainly reside and work abroad.

3.2.3.1. When choosing candidates to foreign members, particular attention is paid to scientists of the Latvian origin who reside and work abroad.

3.2.3.2. When moving for permanent residence in Latvia and commencing scientific activity there, a foreign member of the LAS may be elected a full or corresponding member of the LAS by voting of the General Meeting.

3.2.4. Corresponding members of the LAS are elected scientists, who have gained recognition in a branch of science in Latvia, who can represent the relevant branch of science on a qualified level, evaluate scientific works and scientific fields corresponding to their speciality. Corresponding members of the LAS may be elected scientists under 60. After the elected corresponding member of the LAS has reached the age of 70, he is not included in the total number stipulated in paragraph 3.1.4, yet he maintains the vote at the LAS convocations. A corresponding member of the LAS reaching the age of 70, a new vacancy is opened for the election of a new member.

3.2.5. The General Meeting of the LAS delegates the LAS Senate the right to develop regulations for the election of members and *Doctors honoris causa* to the LAS.

3.3. Members of the LAS have the following rights:

3.3.1. to suggest discussing of scientific and scientific organisational questions at a meeting of the LAS or its Division, as well as at the General Meeting of the LAS;

3.3.2. to receive information on the LAS, its structure, and activities of the Divisions;

3.3.3. to discontinue their membership in the LAS by submitting a written notification to the Presidium of the Latvian Academy of Sciences;

3.3.4. to receive remuneration for performing individual tasks of the LAS in accordance with paragraph 5.6.4 of the present Statute;



3.3.5. to maintain for life the title acquired by election to the LAS, except in cases stipulated in paragraphs 3.3.3 and 3.7 of the present Statute;

3.3.6. to carry out scientific activity within the LAS, to organise, with the consent of the LAS Senate, scientific structures — working groups, centers, and institutes — including both structural units of the LAS and legal entities associated with the LAS.

3.4. Members of the LAS have the following duties:

3.4.1. to take an active part in the implementation of tasks of the Latvian Academy of Sciences;

3.4.2. to take part at general meetings, sessions, and other activities of the Latvian Academy of Sciences;

3.4.3. to publish results of their studies in the *Proceedings of the Latvian Academy of Sciences* or in other scientific issues of Latvia;

3.4.4. to participate in scientific evaluation and render advice within their competence;

3.4.5. to submit, annually, to the Academy a brief information in writing on their scientific or other activity, focusing on the work done in implementation of the tasks of the LAS (paragraph 2.1 of the Statute), and on the information to be additionally included in the personal Internet Home Page which is being maintained by the LAS. Honorary members and foreign members, as well as full members who have reached the age of 70, may give oral information at their Division.

3.5. Foreign members of the Latvian Academy of Sciences have the following rights and duties.

3.5.1. In addition to the aforementioned in paragraphs 3.3 and 3.4, foreign members of the LAS may be involved as experts in the evaluation of Latvian and international scientific projects, as well as in rendering assistance in order to establish and strengthen contacts with science and scientists of Latvia in countries of their residence.

3.5.2. Foreign members of the LAS, who reside in the same foreign country or foreign region, may form a division of foreign members; the fact of establishing such a division and its tasks are approved by the General Meeting of the Latvian Academy of Sciences.

3.5.3. The LAS, in accordance with the financial possibilities of the Academy, covers maintenance expenses in Latvia of a foreign member or an honorary member residing outside Latvia, if this visit takes place at invitation of the Latvian Academy of Sciences.

3.6. Formation of the LAS funds.

3.6.1. The LAS forms the Fund of the LAS, which is aimed at attracting financial resources to promote scientific and academic activity of scientists and students, to organise scientific conferences, to prepare and publish scientific literature, to solve social problems of scientists, and to carry out other activities, observing the instruction of the donor of resources. The Fund functions according to Regulations approved by the LAS. The Chairman of the Fund of the LAS is elected by the General Meeting of the LAS from among full members of the LAS.

3.6.2. In order to reach its aims and key directions (Article 2 of the Statute), the LAS may also form other aid funds to attract additional resources. The procedure for their formation, use, and control is, on recommendation of the LAS Board, approved by the Presidium of the LAS.

3.7. Seccession from the Latvian Academy of Sciences.

3.7.1. For a rude violation of norms of the Scientist's Code of Ethics, the General Meeting of the LAS may recommend full members and corresponding members of the LAS to secede from the Academy.

3.7.2. If a member of the LAS has, in accordance with paragraph 3.3.3 of the present Statute, informed the Presidium of the LAS about his seccession from the Academy, the regular General Meeting of the LAS should be informed about it, causes of the notification should be considered and a decision taken about striking this person off the LAS membership list.

3.8. Election of members to the Latvian Academy of Sciences.

3.8.1. Election of new members of the LAS takes place in accordance with the present Statute. The provisions of paragraph 3.1 of the present Statute about the total number of the relevant members should be observed at election. New members of the LAS are elected by full members of the Latvian Academy of Sciences.

3.8.1.1. Vacancies for new full and foreign members of the LAS appear within quotas stipulated in paragraph 3.1 of the present Statute, or when the existing full and foreign members of the LAS reach the age of 70. When electing new full and foreign members, a common competition of candidates takes place with no privileges granted to any speciality (except in cases when the General Meeting or Senate of the LAS decides otherwise). The Senate of the LAS announces the number of vacancies in April.

3.8.1.2. Vacancies for new corresponding members of the LAS appear within quotas stipulated in paragraph 3.1.4 of the present Statute or when the corresponding members of the LAS reach the age of 70. When electing new corresponding members, a competition takes place within the announced fields of science. Divisions of the Academy recommend fields of science and the number of vacancies for corresponding members, indicating possible candidates.

3.8.1.3. On recommendation of the LAS Senate and within quotas provided in paragraph 3.1.2 of the present Statute, honorary members of the LAS are elected by the General Meeting of the LAS without competition announced in advance. Candidates for election as honorary members of the LAS may be nominated by full and honorary members of the LAS.

3.8.2. By the end of April each year, the Secretary General of the LAS, through the press, informs members of the LAS, scientific institutions, universities and other institutions of higher education, scientific societies, and other organizations of scientists of Latvia about vacancies for members of the LAS.

3.9. The LAS degree of the *Doctor honoris causa* (*Dr. h. c.*) of the LAS is conferred to scientists of foreign countries and Latvia whose works in the relevant branch of science have gained international recognition, whose contribution has influenced development of science and culture in Latvia, and who have creative scientific contacts with the LAS. The LAS degree of *Dr. h. c.* is conferred by the LAS divisions and approved by the Senate of the Latvian Academy of Sciences.

3.10. For considerable financial and moral support of science of Latvia aimed at promoting tasks of the LAS (paragraph 2.1 of the Statute), a title of the Honorary Patron of the LAS may be awarded by a decision of the Senate, presenting a relevant diploma.

#### Article 4. CONVOCATIONS OF THE LATVIAN ACADEMY OF SCIENCES

4.1. Main forms of the convocations of the LAS are general meetings, meetings (sessions), symposia, conferences, and discussions.

4.1.1. Meetings are convened when necessary. Agenda of the regular convocations should be announced in advance.

4.1.2. Extraordinary convocations are convened by the President or Presidium of the LAS on their own initiative or on recommendation of a Division, or if it is required by at least 25 members of the Latvian Academy of Sciences. Extraordinary meeting is competent if it is known that  $\frac{2}{3}$  of the full members (of the total number stipulated in paragraph 3.1.1) have received information about it at least 24 hours before the convocation.

4.1.3. Information on occurred convocations are published in *Proceedings of the Latvian Academy of Sciences* and/or in other scientific and press issues of Latvia.

##### 4.2.1. Meetings of the LAS:

4.2.1. listen to lectures and reports of the Academy members, *Dr. h. c.* of the LAS, and other scientists;

4.2.2. discuss concrete activities of how to reach objectives announced in the Charter and Statute of the LAS, adopt recommendations on them;

4.2.3. assess national and scientific programmes of Latvia, projects, and final results of their implementation, recommend to form working groups to promote their deployment;

4.2.4. discuss questions on foundation or liquidation of institutions and organisations necessary to ensure the work and to implement the tasks of the LAS;

4.2.5. hear reports of the LAS members and other scientists on the most important scientific studies, course of development and implementation of national programmes, and on large projects important for national economy, culture, and education, essentially important foreign scientific visits and their results, as well as consider other questions important for Latvia and its science.

4.3. The LAS meeting is chaired by the President of the LAS or a full member of the LAS who is authorised by him. At the meetings of the LAS, questions are decided by a simple majority of votes of the LAS members present, unless the majority of the participants votes for other agenda. The meeting of the LAS has the right to adopt recommendations to the Senate, Presidium, and Board of the LAS, and the President and other elected officials of the LAS, the *Saeima* of the Republic of Latvia, President of the State, Government and its structures.

## Article 5. ADMINISTRATION, ELECTED INSTITUTIONS, AND OFFICIALS OF THE LATVIAN ACADEMY OF SCIENCES

5.1. The highest decision-making body of the LAS is the General Meeting which is attended by full members, honorary members, foreign members, and corresponding members.

5.1.1. Participation at the general meetings of the LAS is compulsory for full members of the LAS and for corresponding members under the age of 70 unless their absence has excuse. The General Meeting is competent to start its work and to take decisions provided more than a half of full members and corresponding members under the age of 70 are present.

5.1.2. The General Meeting is chaired by the President of the LAS or Vice President authorised by him. At the General Meetings of the LAS, questions are decided by a simple majority of votes of the LAS members present, except the voting for the amendments to the LAS Statute stipulated in paragraph 7.1. The General Meeting decides all questions pertaining to the personnel of the LAS by secret balloting, if the General Meeting does not decide about open voting. Those members of the LAS who cannot take part at the General Meeting may vote by mail about the questions on the

agenda of the General Meeting (including the cases when open voting takes place). The form of the voting-paper, approved by the Senate of the LAS, should be used for voting by mail.

5.1.3. General meetings of the LAS are convened at least twice a year and are open.

5.1.3.1. The Spring General Meeting (usually in April) hears and approves the annual report of the Secretary General of the LAS on the activities of the Academy in the previous year, hears the report of the Supervisory Council, and considers other questions;

5.1.3.2. The Autumn General Meeting (usually in November) hears the academic lecture, elects new members to the Academy, and, on recommendation of the Senate, elects individual officials of the LAS, and considers other questions.

5.1.4. The LAS General Meeting elects the following officials: President, Vice Presidents, and Secretary General of the Academy, Chairman of the LAS Fund, Chairman of the Supervisory Council, and other officials put on the list which is approved by the General Meeting of the LAS. The term of officials is four years, and their election to each of the posts may be permitted no more than two times in turn.

5.2. As a decision-making body, the LAS Senate, together with the President of the LAS and Secretary General of the LAS, heads the work of the LAS interim general meetings.

5.2.1. The Senate:

5.2.1.1. regulates the procedure for managing the LAS and for maintaining its important documents, property, libraries, collections, and other valuables; from among members of the Senate, elects a representative of the LAS to the Academic Library Council and nominates representatives of the LAS for national and international institutions, councils, and commissions;

5.2.1.2. on the basis of recommendations of the LAS meetings and divisions, takes decisions, including about conferring the name of the LAS to institutions and organizations associated with the LAS by terms of mutual agreements (or about depriving them of it);

5.2.1.3. gives interpretation of the Charter, Statute of the LAS, and of decisions of its general meetings.

5.2.2. According to their position, the following full members of the LAS are included in the Senate of the LAS: President, Vice Presidents, and Secretary General of the LAS, Chairman of the LAS Fund, and the elected (paragraph 5.7.4) chairmen of the LAS divisions of sciences. By a decision of the General Meeting of the LAS, other

full members and corresponding members (with the deliberative vote) of the LAS are also elected to the Senate. The term of the Senate is four years.

5.2.3. The election of the Senate or of individual members to the Senate takes place during the General Meeting of the LAS. Members of the newly elected Senate take the office on the first day of the following month. Until then the previous Senate performs its obligations.

5.2.4. The Senate is competent to take decisions if more than a half of the Senate members with the vote participate at the meeting. Decisions are made by open voting, if a different Senate resolution has not been passed, and it is adopted if the majority of the Senate members present has voted for it; if the number of votes cast is distributed equally, the chairperson's vote is the deciding one, except elections, when in case of equal votes the choice is made by repeated voting or drawing lots.

5.3. Regular organisational work of the LAS in between meetings of the Senate and general meetings of the LAS is carried out by the President of the LAS in co-operation with the Presidium of the LAS, which consists of the President, Vice Presidents, and Secretary General.

5.3.1. The Academy is headed and represented by the President of the LAS.

5.3.1.1. In absence of the President, one of the Vice Presidents or the senior chairperson of the divisions acts for him.

5.3.1.2. The President is elected for four years. In order to maintain the succession of the LAS leadership, the President of the previous term is traditionally recommended to be elected Vice President or a member of the Senate.

5.3.1.3. The President may give a part of his powers to other elected officials of the LAS, as may authorise other members of the LAS to represent some interests of the LAS in Latvia and abroad by informing the Presidium or Senate about it.

5.3.2. Under the leadership of the President, the Presidium of the LAS:

5.3.2.1. recommends for the Senate's approval directions of activities and responsibility of elected officials of the LAS (except the members of the Supervisory Council), and defines their concrete operative duties;

5.3.2.2. recommends solutions for regular more significant problems of the LAS;

5.3.2.3. recommends the agenda for regular and extraordinary general meetings of the LAS and announces it to members of the Academy;

5.3.2.4. performs regular duties pertaining to the work and representation of the LAS, commissioned to it by the President, Senate, or by the General Meeting of the LAS.

5.4. The business and organisational activity of the LAS is planned and realised by the Secretary General who is the Chairman of the Board.

#### 5.4.1. Secretary General:

5.4.1.1. fulfills the decisions of the General Meeting, Senate, and Presidium of the LAS;

5.4.1.2. co-ordinates organisation of the joint activities of the divisions of the LAS (including the LAS meetings) and their programmes.

5.4.1.3. controls the work of the LAS personnel, including the activities of the Managing Department of the LAS and other business structures of the LAS, receives regular reports from them and commissions them to take necessary measures to optimise the work, and ensures audit of the LAS financial activity.

5.4.1.4. regularly informs the General Meeting, Presidium, and Senate of the LAS about the work done.

5.4.2. The Board of the LAS functions in accordance with the regulation adopted by the LAS Senate. Members of the LAS Board are elected by the Senate of the LAS from among chairmen of the divisions and full members. The Secretary General recommends the number of members of the Board. The Senate elects deputy Secretary General who performs the duties of the Secretary General in his absence. The Senate may draw in the Board other full members and corresponding members of the LAS, including the elected officials of the LAS, with the deliberative vote.

5.5. The General Meeting of the LAS elects the Supervisory Council which, according to a regulation approved by the General Meeting of the LAS, gets acquainted with the activity of the LAS and assesses its conformity with the Charter and the Statute of the LAS, follows the fulfillment of resolutions passed by general meetings, the Senate, Presidium, and Board of the LAS, and performs other tasks which have been commissioned to it by the General Meeting of the LAS. The term of the Supervisory Council is four years.

5.6. Officials of the LAS are elected according to the following procedure:

5.6.1. Citizens of the Republic of Latvia may only be elected the President, Vice Presidents, Secretary General of the Academy, and the Chairman of the LAS Fund.

5.6.2. Full members of the LAS, who are at the time of election under 70, may be elected the President, Vice Presidents, Secretary General of the LAS, and a chairperson of the LAS Division.

5.6.3. All officials of the LAS are elected and recalled at the general meetings of the academy according to the following procedure:

5.6.3.1. Nomination of the elected officials of the LAS from among full members may be made by all members of the LAS (full, honorary, foreign, and corresponding members) and divisions of the LAS, or commissions formed by them. In his application to the Senate, the nominator or his representative should give a motivated charac-

terisation of the nominee. The application should be submitted to the Senate not later than 30 days before the General Meeting of the LAS, in which the election will take place. Persons are elected if at the General Meeting they have received the majority of votes, but not less than a half of the votes cast by members of the LAS present. The elected President traditionally nominates candidates for the post of Vice Presidents and Secretary General. In case of equal number of votes, the choice is made by repeated voting or by drawing lots, deciding about the concrete procedure in advance.

5.6.3.2. Officials of the LAS may be recalled by the General Meeting of the LAS, if a motivated proposal is made by the Senate of the LAS or at least 25 full and/or corresponding members (at least 10 full members should be among submitters of the proposal). The decision to include the question about revocation of an official of the LAS in the agenda of the regular or extraordinary General Meeting of the LAS is adopted by the Senate. The revocation takes effect after the secret ballot of the General Meeting, if the revocation is supported by at least 2/3 of the LAS members present and the General Meeting decides about the term for election of a new official.

5.6.4. Members of the LAS who are elected to the posts of the LAS, as well as experts and other scientists who fulfill individual tasks of the Academy, receive remuneration for this work. The procedure and size of remuneration for the elected officials of the LAS is approved by the Senate of the LAS.

5.7. With the purpose to promote development of interdisciplinary problems and mutual contacts among representatives of related sciences, members of the LAS unite in divisions of sciences. The foundation, key directions of activities, and the name of the Division are approved by the General Meeting of the Latvian Academy of Sciences.

5.7.1. The Division holds its own meetings or organises meetings of the LAS in order to:

5.7.1.1. work out national programmes of Latvia, those of national importance and other programmes and to discuss the course of their implementation;

5.7.1.2. solve interdisciplinary scientific problems;

5.7.1.3. hear scientific reports, reviews over scientific studies and activities which have been carried out with the support of the LAS or are topical for the development of science, education, national economy, and culture of Latvia;

5.7.1.4. give recommendations to the LAS and the chairperson of the Division on necessary activities of the LAS.

5.7.2. Divisions of sciences within themselves form permanent or interim sections, working groups, commissions, and other similar structures, which unite members of the LAS and other scientists to carry out concrete programmes, projects, grants and



other scientific topical tasks. Scientific activity of such a structure is headed by a member of the LAS, the nomination of whom is approved by the Division. On recommendation of the Senate of the LAS, the above structures may acquire the rights of a legal entity as scientific institutions, by registering the foundation documents in procedure provided by the law.

5.7.3. To ensure the work of such structures, divisions of sciences of the LAS may, in addition to members of the Academy, attach experts from among scientists and specialists. The experts are elected at the meetings of the divisions.

5.7.4. Each Division elects the chairperson in secret ballot, who is approved by the General Meeting of the LAS in secret ballot. The chairperson of the Division, or a member of the Division authorised by him, takes part in all meetings of sections and working groups of the Division, thus favouring exchange of information and its assessment.

5.7.5. The Division itself adopts and approves a concrete programme of activities and regulations of the Division, in order to realise tasks and directions of work of the Latvian Academy of Sciences.

5.8. The Latvian Academy of Sciences may associate autonomous scientific institutions (legal entities) which in conformity with paragraph 5.7.2 are founded in procedure provided by the law, or the co-operation of which with the LAS is determined by mutual agreement (agreement of association or of other type).

5.8.1. The agreement should provide mutual obligations and forms of co-operation between the LAS and the scientific institution: use of the name of the LAS by the associated institution, participation of the LAS in the evaluation of main research directions of this institutions, and representation of interests of the LAS institute in the supreme authorities of the Republic of Latvia.

5.8.2. The associated scientific unions and societies of paragraph 2.1.8, as well as individual groups of scientists may function under the authority of the LAS or its divisions.

5.9. Museums and scientific collections and archives which require special preservation may be under the tenure and jurisdiction of the Latvian Academy of Sciences.

5.10. The Latvian Academy of Sciences has the permanent and interim personnel, the list and labour contracts of which are controlled by the Secretary General of the LAS and a structural unit of the LAS, the Managing Department (in compliance with the Statute of the Managing Department approved by the Senate of the LAS). The list of the permanent personnel is prepared by the Secretary General of the LAS within the limits of the annual budget of the LAS approved by the Senate.

Article 6. PROPERTY AND RESOURCES OF THE LATVIAN ACADEMY OF SCIENCES

6.1. The property of the LAS may be land, other real estate, as well as movable property, intellectual property, currency, and securities in Latvia and abroad.

6.1.1. The Latvian Academy of Sciences has in its possession fixed assets and other property, which has been given to it by public institutions, presented by legal entities or physical persons or which it has acquired as a result of its activities or on other legal basis.

6.1.2. The Latvian Academy of Sciences manages institutions and organisations, which are necessary to secure its functioning and tasks of activity. The Latvian Academy of Sciences may also manage scientific institutions and organisations, which secure functioning of important for Latvia directions of science, including those to be developed anew. The managing procedure of these structures is determined by the LAS and by agreements signed with the institutions associated with the Latvian Academy of Sciences.

6.2. The Latvian Academy of Sciences is a non-governmental scientific organisation the necessary financing of which is subsidised from the state budget.

6.3. The special budget of the LAS is formed of resources which are obtained from:

6.3.1. contractual works and entrepreneurial activity;

6.3.2. managing of property;

6.3.3. donations and presents;

6.3.4. other sources.

6.4. The Latvian Academy of Sciences uses surplus income over expenditure for material and technical development and for formation of its assets. The rules for use of assets are approved by the Senate of the Latvian Academy of Sciences.

6.5. Managing of the LAS property is provided by the Managing Department of the LAS, the work of which is, according to paragraph 5.4 of the Statute, under the authority of the Secretary General of the LAS and of the Board of the LAS. The Secretary General reports to the LAS Senate about acquiring additional property and resources.

6.6. The Supervisory Council realises control over managing of property and use of resources of the LAS according to paragraph 5.5 of the present Statute.

Article 7. AMENDMENTS TO THE STATUTE

7.1. Amendments to the Statute of the LAS may be made by the decision of its General Meeting which is adopted if at least  $2/3$  of the full members have voted (including the ballot-papers received by mail) and if more than a half of full members have voted for the relevant changes.

7.2. Draft amendment to the Statute is put for voting on a motivated initiative of the Senate or 25 full members of the LAS. The draft amendment should be submitted to members of the LAS for discussion or announced in the press at least 14 days before voting at the General Meeting.

7.3. Results of voting are fixed by the polling commission and the correctness is checked by the Supervisory Council of the LAS, which draw up a common statement, that should be signed by all members of the polling commission, by no less than by  $2/3$  of the members of the Supervisory Council, as well as by the President and Secretary General of the Academy. The amendment to the Statute becomes effective 10 days after signing of the above statement.

# UNITS OF THE LATVIAN ACADEMY OF SCIENCES

## SENATE OF THE LATVIAN ACADEMY OF SCIENCES

Akadēmijas laukums 1, Rīga, LV 1050, Latvia

Tel.: (371) 7225361. Fax: (371) 7821153.

E-mail: lza@lza.lv

### *Chair of the Senate* **Jānis STRADIŅŠ**

Tel.: (371) 7213663, (371) 7555985. Fax: (371) 7821153. E-mail: stradins@lza.lv

### *Members of the Senate*

#### **Juris EKMANIS**, President of the Academy

Tel.: (371) 7223644, (371) 7551373. Fax: (371) 7821153. E-mail: ekmanis@lza.lv

#### **Andrejs SILIŅŠ**, Vice President of the Academy

Tel.: (371) 7211405. Fax: (371) 7821153. E-mail: silins@lza.lv

#### **Juris JANSONS**, Vice President of the Academy,

Chair of the Division of Physical and Technical Sciences

Tel.: (371) 7223633, (371) 7551145. Fax: (371) 7821153, (371) 7820467.

E-mail: jansons@pmi.lv; fizteh@lza.lv

#### **Tālav JUNDZIS**, Vice President of the Academy

Chair of the Division of Social Sciences and Humanities

Tel.: (371) 7225889. Fax: (371) 7821153. Tel./Fax: (371) 7227555.

E-mail: bspceva@lza.lv

#### **Raimonds VALTERS**, Secretary General of the Academy,

Chair of the Division of Chemical, Biological, and Medical Sciences

Tel.: (371) 7225361, (371) 7089231. Fax: (371) 7821153.

E-mail: rvalters@latnet.lv

#### **Ivars KALVIŅŠ**, Chair of the Council of Libraries

Tel.: (371) 7553233, (371) 7551822. Fax: (371) 7550338.

E-mail: kalvins@osi.lv

#### **Mārcis AUZIŅŠ**

Tel. (371) 7033700. Fax: (371) 7033751. E-mail: marcis.auzins@lu.lv

#### **Mārtiņš BEĶERS**

Tel.: (371) 7034892. Fax: (371) 7034885. E-mail: mbek@lanet.lv

**Jānis BĒRZIŅŠ**

Tel.: (371) 7223715. Fax: (371) 7225044. E-mail: lvi@lza.lv

**Ivars BIĻINSKIS**

Tel.: (371) 7554500. Fax: (371) 7555337. E-mail: bilinskis@edi.lv

**Andris BUIKIS**

Tel.: (371) 7225674. Fax: (371) 7227520. E-mail: buikis@latnet.lv

**Elmārs GRĒNS**

Tel.: (371) 7808003, (371) 7808201. Fax: (371) 7442407. E-mail: grens@biomed.lu.lv

**Viktors HAUSMANIS**

Tel.: (371) 7357910. Fax: (371) 7229017. E-mail: litfom@lza.lv

**Vija KLUŠA**

Tel.: (371) 29276263. Tel./Fax: (371) 7366306. E-mail: vijaklus@latnet.lv

**Māris KĻAVIŅŠ**

Tel.: (371) 7331766. Fax: (371) 7332704. E-mail: mklavins@lanet.lv

**Ivars KNĒTS**

Tel.: (371) 7089300. Fax: (371) 7089302. E-mail: knets@latnet.lv

**Andris KRŪMIŅŠ**

Tel.: (371) 7261414. Fax: (371) 7132778. E-mail: krumins@latnet.lv

**Maija KŪLE**

Tel.: (371) 7229208. Fax: (371) 7210806. E-mail: fsi@lza.lv

**Ivars LĀCIS**

Tel.: (371) 7034301. Fax: (371) 7034302. E-mail: ilacis@lanet.lv; ivars.lacis@lu.lv

**Dace MARKUS**

Tel.: (371) 7808010. Fax: (371) 7808034. E-mail: markus@latnet.lv; rpiva@rpiva.lv

**Tālis MILLERS**

Tel.: (371) 7228784. Fax: (371) 7821153. E-mail: millers@lza.lv

**Baiba RIVŽA**

Tel.: (371) 3023739, (371) 7047810. Fax: (371) 7213992.

E-mail: velga.jakusko@izm.gov.lv

**Valentīna SKUJIŅA**

Tel.: (371) 7229636. Tel./Fax: (371) 7227696. E-mail: vaska@lza.lv

*Scientific Secretary of the Senate* **Alma EDŽIŅA**

Tel.: (371) 7223931. Fax: (371) 7821153. E-mail: alma@lza.lv

## **PRESIDIUM OF THE LATVIAN ACADEMY OF SCIENCES**

Akadēmijas laukums 1, Rīga, LV 1050, Latvia  
Tel.: (371) 7225361. Fax: (371) 7821153. E-mail: lza@lza.lv

*President of the Presidium* **Juris EKMANIS**, President of the Academy

Tel.: (371) 7223644, (371) 7551373. Fax: (371) 7821153. E-mail: ekmanis@lza.lv  
Secretary Dace GOVINČUKA. Tel.: (371) 7225361. E-mail: lza@lza.lv

*Members of the Presidium*

**Jānis STRADIŅŠ**, Chair of the Senate

Tel.: (371) 7213663, (371) 7555985. Fax: (371) 7821153. E-mail: stradins@lza.lv

**Andrejs SILIŅŠ**, Vice President of the Academy

Tel.: (371) 7211405. Fax: (371) 7821153. E-mail: silins@lza.lv

**Juris JANSONS**, Vice President of the Academy

Tel.: (371) 7223633, (371) 7551145. Fax: (371) 7821153, (371) 7820467.  
E-mail: jansons@pmi.lv; fizteh@lza.lv

**Raimonds VALTERS**, Secretary General of the Academy

Tel.: (371) 7225361, (371) 7089231. Fax: (371) 7821153.  
E-mail: rvalters@latnet.lv

*Members of the Presidium with an advisory vote*

**Tālis MILLERS**, Chairman of the Fund of the Latvian Academy of Sciences

Tel.: (371) 7228784. Fax: (371) 7821153. E-mail: millers@lza.lv

**Jānis KRISTAPSONS**, Adviser to the President

Tel.: (371) 7223567. Fax: (371) 7821153. E-mail: jtk@lza.lv

## BOARD OF THE LATVIAN ACADEMY OF SCIENCES

Akadēmijas laukums 1, Rīga, LV 1050, Latvia  
Tel.: (371) 7225361. Fax: (371) 7821153  
E-mail: lza@lza.lv

*Chair of the Board* **Raimonds VALTERS**, Secretary General, Chair of  
the Division of Chemical, Biological, and Medical Sciences

Tel.: (371) 7225361, (371) 7089231. Fax: (371) 7821153.

E-mail: rvalters@latnet.lv

*Vice Chair of the Board* **Uldis VIESTURS**, Deputy Secretary General

Tel.: (371) 7034884, (371) 7553063, (371) 29284923. Fax: (371) 7034885, (371) 7550635,  
(371) 7821153. E-mail: lumbi@lanet.lv

### *Members of the Board*

**Jānis BĒRZIŅŠ**, Vice Chair of the Division of Social Sciences and  
Humanities

Tel.: (371) 7223715. Fax: (371) 7225044. E-mail: lvi@lza.lv

**Juris JANSONS**, Chair of the Division of Physical and Technical  
Sciences

Tel.: (371) 7551145, (371) 7223633. Fax: (371) 7821153, (371) 7820467.

E-mail: jansons@pmi.lv, fizteh@lza.lv

**Tālavas JUNDZIS**, Chair of the Division of Social Sciences and  
Humanities

Tel.: (371) 7225889, Tel./Fax: (371) 7227555. E-mail: bspceva@lza.lv

**Arnīs TREIMANIS**, Acting Chair of the Division of Agriculture and  
Forestry Sciences

Tel.: (371) 7223448. Fax: (371) 7821153. E-mail: lmzn@lza.lv; arnis.treimanis@edi.lv

**Andrejs SILIŅŠ**, Vice President of the Academy

Tel.: (371) 7211405. Fax: (371) 7821153. E-mail: silins@lza.lv

## **SUPERVISORY COUNCIL OF THE LATVIAN ACADEMY OF SCIENCES**

Akadēmijas laukums 1, Rīga, LV 1050, Latvia

Tel.: (371) 7225361. Fax: (371) 7821153

E-mail: lza@lza.lv

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Tel.: (371) 7034788. Fax: (371) 7034787. E-mail: zvidrins@lanet.lv

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**Elmārs BLŪMS**

Tel.: (371) 7944664. Fax: (371) 7901214. E-mail: eblums@latnet.lv

**Arnis KALNIŅŠ**

Tel.: (371) 7568319. E-mail: arnisk@e-teliamtc.lv

**Rihards KONDRATOVIČS**

Tel.: (371) 9103858. Tel./Fax: (371) 7913127. E-mail: Rihards.Kondratovics@lu.lv

**Ēvalds MUGURĒVIČS**

Tel.: (371) 7226934. Fax: (371) 7225044. E-mail: lvi@lza.lv

**Rolands RIKARDS**

Tel.: (371) 7089124. Fax: (371) 7089254. E-mail: rikards@latnet.lv

**Andris STRAKOVS**

Tel.: (371) 7089221. Fax: (371) 7615765. E-mail: strakovs@latnet.lv

## **INTERNATIONAL RELATIONS OF THE LATVIAN ACADEMY OF SCIENCES**

Akadēmijas laukums 1, Rīga, LV 1050, Latvia

Tel.: (371) 7227391. Fax: (371) 7821153. E-mail: int@lza.lv

*Adviser to the President* **Anita DRAVENIECE**

Tel.: (371) 7227391. Fax: (371) 7821153. E-mail: int@lza.lv

*Liaison Officer* **Agnese SURKOVA**

Tel.: (371) 7227391. Fax: (371) 7821153. E-mail: int@lza.lv

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Tel.: (371) 7227391. Fax: (371) 7821153. E-mail: int@lza.lv



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Akadēmijas laukums 1, Rīga, LV 1050, Latvia. Tel.: (371) 7229830  
Fax: (371) 7821153. E-mail: vestis@lza.lv; proceed@lza.lv; lzavestis@inbox.lv  
<http://www.lza.lv/vestis/vestis.htm>

*Editor-in-charge* **Arno JUNDZE**

*Chair of the Editorial Advisory Board* **Tālavš JUNDZIS**

Tel.: (371) 7225889, (371) 7227555. Fax: (371) 7821153. E-mail: bspeva@lza.lv

*Vice Chair of the Editorial Advisory Board* **Īzaks RAŠALS**

Tel.: (371) 7945435. Fax: (371) 7944986. E-mail: izaks@email.lubi.edu.lv

Editorial staff of Section “A” (Social Sciences and Humanities)

*Chair of the Editorial Board* **Saulvedis CIMERMANIS**

Tel.: (371) 7565265, (371) 7225889. Fax: (371) 7225044. E-mail: lvi@lza.lv

*Editor* **Anastasija BRICE**

Editorial staff of Section “B” (Natural, Exact, and Applied Sciences)

*Chair of the Editorial Board* **Īzaks RAŠALS**

*Editor* **Antra LEGZDIŅA**

Tel.: (371) 7228085. E-mail: proceed@lza.lv

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## NUMBER OF THE LAS MEMBERS

	01.01.93	01.01.2000	15.03.2005	15.03.2006	15.03.2007
Full members	68	91 (67)	98 (65)	101 (58)	100 (55)
Honorary members	40	55	51	50	52
Foreign members	57	88 (45)	92	94	92
Corresponding members	46	84	98 (85)	105 (79)	108 (90)
Total	211	318	339	350	352

*Note.* Under the headings 01.01.2000 to 15.03.2007, the number of those members of the LAS is given in brackets, who are under the age of 70.

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Tel.: (371) 7223633 Fax: (371) 7821153

E-mail: fizteh@lza.lv

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The Division unites 86 LAS members, among them 30 full, 3 honorary, 20 foreign, and 33 corresponding members.

The Division has awarded 11 scientists a degree of *Dr. honoris causa*.

Speciality	Number of members			
	full	corresponding	foreign	honorary
Physics	17	7	12	–
Mechanics	8	6	3	–
Computer science	3	8	3	2
Mathematics	2	5	1	–
Astronomy	–	3	1	–
Power engineering	–	4	–	1

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AND THEIR FIELD OF SPECIALISATION

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Akadēmijas laukums 1, Rīga, LV 1050, Latvia

Tel.: (371) 7220725. Fax: (371) 7821153

E-mail: chem@lza.lv

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*Chair of the Division* Raimonds VALTERS

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The Division unites 116 LAS members, among them 39 full, 7 honorary, 31 foreign, and 39 corresponding members.

The Division has awarded 32 scientists a degree of *Dr. honoris causa*.

Speciality	Number of members			
	full	corresponding	foreign	honorary
Chemistry	13	7	9	–
Medicine	10	11	10	4
Biology	8	11	6	1
Biotechnology	3	–	1	–
Ecology, environmental science, and geography	2	3	1	–
Geology and water management	–	2	2	1
Agricultural sciences	1	3	–	1
Forestry	–	1	–	–
History of science	–	–	1	–
Materials science	2	1	1	–



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AND THEIR FIELD OF SPECIALISATION**Agricultural Sciences**

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Akadēmijas laukums 1, Rīga, LV 1050, Latvia

Tel.: (371) 7225889. Fax: (371) 7821153.

E-mail: humana@lza.lv

Board of the Division

*Chair of the Division* Tālavš JUNDZIS

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The Division unites 148 LAS members, among them 31 full, 42 honorary, 41 foreign, and 34 corresponding members.

The Division has awarded 28 scientists a degree of *Dr. honoris causa*.

Speciality	Number of members			
	full	corresponding	foreign	honorary
Literary criticism	5	2	8	–
Literature	–	–	1	12
Economics	6	7	3	2
Philosophy	3	4	1	–
Law	2	2	1	–
Linguistics	3	7	9	1
History	4	3	6	2
Anthropology	–	–	–	1
Archaeology	3	2	–	–
Architecture	1	–	2	2
Bibliography	–	–	1	–
Demography	–	2	–	–
Ethnography	1	–	–	–
Art Studies	1	1	–	1
Art	–	–	1	18
Pedagogics	–	1	–	–
Political Studies	1	1	4	–
Psychology, Folklore Studies	1	–	1	–
Sociology	–	2	1	–
Theology	–	–	–	1
History of culture	–	–	1	–
History of art	–	–	–	1
History of science	–	–	1	–
Journalistics	–	–	–	1

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AND THEIR FIELD OF SPECIALISATION

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Baiba Metuzāle-Kangere, for.mem.  
Algirdas Sabaliauskas, for.mem.  
Seppo Suhonen, for.mem.  
Wolfgang Schmid, for.mem.  
Zigmas Zinkevičius, for.mem.

### **Literary Criticism**

Viktors Hausmanis, full mem.  
Viktors Ivbulis, full mem.  
Benedikts Kalnačs, full mem.  
Janīna Kursīte-Pakule, full mem.  
Vera Vāvere, full mem.  
Ausma Cimdiņa, cor.mem.  
Fjodors Fjodorovs, cor.mem.  
Rolfs Ekmanis, for.mem.  
Benjamiņš Jēgers, for.mem.  
Lalita Muižniece, for.mem.  
Valters Nollendorfs, for.mem.  
Radekast Parolek, for.mem.  
Juris Silenieks, for.mem.  
Friedrich Scholz, for.mem.  
Jana Tesařová, for.mem.

**Literature**

Ludmila Azarova-Vāciete, hon.mem.  
 Alberts Bels, hon.mem.  
 Uldis Bērziņš, hon.mem.  
 Roalds Dobrovenskis, hon.mem.  
 Juris Kronbergs, hon.mem.  
 Jānis Peters, hon.mem.  
 Valdis Rūmnieks, hon.mem.  
 Knuts Skujenieks, hon.mem.  
 Zigmunds Skujiņš, hon.mem.  
 Māra Zālīte, hon.mem.  
 Imants Ziedonis, hon.mem.  
 Anna Žīgure, hon.mem.  
 Andrei Voznesensky, for.mem.

**Pedagogics**

Tatjana Koķe, cor.mem.

**Philosophy**

Maija Kūle, full mem.  
 Valentins Šteinbergs, full mem.  
 Andris Rubenis, cor.mem.  
 Igors Šuvajevs, cor.mem.

Ivans Vedins, cor.mem.  
 Vilnis Zariņš, cor.mem.  
 Arvīds Ziedonis, for.mem.

**Political Studies**

Tālavš Jundzis, full mem.  
 Artis Pabriks, cor.mem.  
 Andreas Ādahl, for.mem.  
 Juris Dreifelds, for.mem.  
 Jānis Peniķis, for.mem.  
 Rasma Šilde-Kārklīņa, for.mem.

**Psychology**

Solveiga Miezīte, for.mem.

**Psychology, Folklore Studies**

Vaira Viķe-Freiberga, full mem.

**Sociology**

Aivars Tabuns, cor.mem.  
 Tālis Tisenkopfs, cor.mem.  
 Wilfried Schlau, for.mem.

**Theology**

Juris Rubenis, hon.mem.

## DIVISION OF AGRICULTURE AND FORESTRY SCIENCES

Akadēmijas laukums 1, Rīga, LV 1050, Latvia

Tel.: (371) 7223448. Fax: (371) 7821153

E-mail: lmzn@lza.lv

Board of the Division

*Acting Chair of the Division* Arnis TREIMANIS

*Acting Scientific Secretary* Ieva SLOKA

Members of the Board:

Aleksandrs JEMEĻJANOVŠ

Uldis VIESTURS

The Division currently unites 18 LAS members, among them 8 full, 1 honorary, and 9 corresponding members. In its activities the Division has involved 3 Doctors *honoris causa*.

Speciality	Number of members			
	full	corresponding	foreign	honorary
Biology and Biotechnology	3	–	–	–
Economics	2	1	–	–
Agriculture and Processing Technologies	1	3	–	1
Forestry Science and Wood Technologies	2	4	–	–
Water Management	–	1	–	–

MEMBERS OF THE DIVISION  
BY SPECIALITIES

**Biology and Biotechnology**

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Īzaks Rašals, full mem.

Uldis Viesturs, full mem.

**Economics**

Arnis Kalniņš, full mem.

Baiba Rivža, full mem.

Kazimirs Špoģis, cor. mem.

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Aldis Kārkliņš, cor. mem.

Jānis Latvietis, hon. mem.

**Forestry Science and Wood  
Technologies**

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Nikolajs Vederņikovs, full mem.

Imants Liepa, cor. mem.

Arnis Treimanis, cor. mem.

Pēteris Zālītis, cor. mem.

Aivars Žūriņš, cor.mem.

**Water Management**

Ansis Zīverts, cor. mem.



## OVERSEAS DIVISION

University of Latvia, Raiņa bulv. 19–248, Rīga, LV 1586, Latvia  
Tel.: (371) 26496128. Fax: (371) 67174758  
E-mail: jpuika@chariot.net.au

### *Board of the Division:*

Nikolajs BALABKINS, Juris DREIFELDS, Jānis KĻAVIŅŠ,  
Jānis KRĒSLIŅŠ, Jānis MELNGAILIS, Andris PADEGS,  
Andrejs PLAKANS, Jānis PRIEDKALNS, Edvīns VEDĒJS, Kristaps ZARIŅŠ

The Board of the Division is conducted by Jānis PRIEDKALNS

The Overseas Division of the Latvian Academy of Sciences is formed in accordance with Article 3.5.2 of the LAS Statute and approved at the LAS General Meeting on 26 November 1993.

The decision of 18 October 1994, taken by the LAS Senate, has set forth the following tasks for the LAS Overseas Division:

1. Involvement of the LAS foreign members (mainly of those living in the USA and Canada) into activities of the LAS, including their regular acquainting with the LAS informative materials.

2. Assistance to young scientists by organising their supplementary studies (particularly the post-doctoral ones) in foreign educational institutions.

3. Finding out young scientists of Latvian origin in foreign countries and drawing them in the promotion of science of their ethnic motherland; recommendation of candidates to be elected new foreign members of the LAS.

4. Development of close relations and co-operation with the Latvian–American Association of Academic Staff and Scientists (*LAMZA*) and the Association for the Advancement of Baltic Studies (AABS).

5. Wider involvement of foreign Latvian scientists in the evaluation of scientific projects carried out in Latvia.

6. In the event that due to some reasons, free functioning of the Latvian Academy of Sciences could have been hindered, to entrust the LAS Overseas Division with the duty to perform functions of the LAS and to act as a full-fledged mission (representation) of the LAS.

As provided by the decision of the General Meeting of the Latvian Academy of Sciences, adopted on 13 February 1998, members of the Board, when in Latvia, have full rights in the Senate of the LAS.

# GRAND MEDAL, PRIZES, AND AWARDS OF THE LATVIAN ACADEMY OF SCIENCES

## GRAND MEDAL OF THE LATVIAN ACADEMY OF SCIENCES

The Grand Medal of the Latvian Academy of Sciences is the highest reward which is awarded by the LAS to scientists of Latvia and of foreign countries for their outstanding creative contribution.

The Grand Medal of the LAS is cast in bronze. The LAS emblem with an inscription “*Academia Scientiarum Latviensis*” is depicted on its front and the name and family name of the person awarded and the date of awarding are engraved on the reverse side.

Candidates for the above reward may be recommended by the LAS full, honorary, and foreign members, the LAS Divisions, by submitting in a written form a motivated proposal and a brief reference on the candidate recommended. The LAS Senate takes a decision about awarding.

So far, the LAS Grand Medal has been awarded to J. Graudonis (1993), J. Stradiņš (1993), E. Dunsdorfs (1994), E. Lavendelis (1994), E. Grēns (1995), D. A. Loeber (1995), M. Staudinger-Woit (1996), E. Lukevics (1996), E. Siliņš (1997), V. Viķe-Freiberga (1997), D. Draviņš (1998), J. Krastiņš (1998), O. Lielausis (1999), J. Upatnieks (1999), G. Birkerts (2000), M. Beķers (2000), A. Caune (2001), J. Hartmanis (2001), T. Millers (2002), V. Toporovs (2002), R.M. Freivalds (2003), I. Šterns (2003), I. Lancmanis (2004), A. Padegs (2004), E. Blūms (2005), and E. Vedējs (2005), R. Kondratovičs, T. Fennels (2006), V. Hausmanis (2007), and R. Evarestovs (2007).

## PRIZES OF THE LATVIAN ACADEMY OF SCIENCES

For the best scientific contribution in certain branches of science, the LAS awards prizes which are named after prominent Latvian scientists. Each prize is announced once a year or in two years.

A prize is awarded for individual scientific contribution, discoveries, inventions, as well as for a series of scientific works (devoted to a common subject). Only an individual candidate may be nominated to contest for the prize and the main author from a group of authors. Scientists of Latvia and those scientists living abroad, whose research subject is connected with Latvia, may stand for a prize.

The fund of the LAS prizes is formed of the LAS monetary resources and of supporters' donations.

The Latvian Academy of Sciences awards the following prizes:

***The Rainis Prize*** for outstanding contribution in science or culture

IN PHYSICAL AND TECHNICAL SCIENCES

***The Eižens Āriņš Prize*** in computer sciences and their applications  
(together with the joint stock company "Dati" and Latvian Education Foundation)

***The Arturs Balklavs Prize*** for outstanding achievements in popularization of science

***The Pīrss Bols Prize*** in mathematics

***The Frīdrihs Canders Prize*** in mechanics and astronomy

***The Walter Zapp Prize*** to the best inventor  
(together with the Patent Office of the Republic of Latvia)

***The Edgars Siliņš Prize*** in physics

***The Alfrēds Vītols Prize*** in engineering sciences and energetics  
(together with the joint stock company "Latvenergo")

IN CHEMICAL, BIOLOGICAL, MEDICAL, AND AGRICULTURAL SCIENCES

***The Arvīds Kalniņš Prize*** in forestry, wood research, and technology  
(together with the Latvian Academy of Agriculture and Forestry)

***The Paulis Lejiņš Prize*** in agricultural sciences

***The Heinrichs Skuja Prize*** in biological sciences

***The Pauls Stradiņš Prize*** in science of medicine and its history, for outstanding scientific contribution in practical medicine  
(together with the Pauls Stradiņš Museum of the History of Medicine)

***The Gustavs Vanags Prize*** in chemical sciences

***The Solomons Hillers Prize*** for outstanding achievements in biomedicine and the design of new medications  
(together with the joint stock company "Grindex," Latvian Institute of Organic Synthesis, Biomedical Research and Study Centre, University of Latvia)

IN SOCIAL SCIENCES AND HUMANITIES

<i>The Jānis Endzelīns Prize</i>	in Latvian linguistics, Baltic Studies
<i>The Kārlis Balodis Prize</i>	in national economy
<i>The Fricis Brīvzemnieks Prize</i>	in Latvian Folklore studies
<i>The Teodors Celms Prize</i>	in philosophy
<i>The Arveds Švābe Prize</i>	in history of Latvia
<i>The Vilis Plūdonis Prize</i>	in literary criticism
<i>The Tāļivaldis Vilciņš Prize</i>	in sociology
<i>The Kārlis Mīlenbahs Prize</i>	in applied Latvian linguistics (together with the Rīga Latvian Society)
<i>The Marģers Skujenieks Prize</i>	in statistics
<i>The Kārlis Ulmanis Prize</i>	for research in and solutions for the national economy of Latvia and study of the problems of the history of the State

Four to six LAS prizes are granted every year. The list of prizes is published in June in the newspapers *Latvijas Vēstnesis* and *Zinātnes Vēstnesis*, as well as in the homepage of the LAS (<http://www.lza.lv>). The submission deadline for applications is 31 October 2007.

THE OUTSTANDING SCIENTISTS WHOSE NAMES HAVE  
BEEN ATTRIBUTED TO THE LATVIAN ACADEMY  
OF SCIENCES PRIZES

**Eižens ĀRIŅŠ** (1911–1987)—mathematician, in the 1950s he was one of the first scientists in Latvia to go in for computer technology. In 1959, he established the first Computing Centre in Latvia (now the Institute of Mathematics and Computer Sciences at the University of Latvia).

The winners of Eižens Āriņš prize are R. M. Freivalds (2000), V. Detlovs (2002), J. Osis (2004), and J. Bārzdiņš (2006).

**Kārlis BALODIS** (1864–1931)—a wide-profile specialist in national economy who has substantiated many new economic ideas, particularly focusing on “the state capitalism.”

The Kārlis Balodis Prize has been awarded to N. Balabkins (1994), P. Zvidriņš (1996), O. Krastiņš (1998), J. Krūmiņš (2004), and R. Karnīte (2007).

**Arturs BALKLAVS-GRĪNHOFŠ** (1933–2005)—radioastronomer, outstanding popularizer of sciences. Since 1969, director of Radioastrophysical Observatory (uniting observatories of the LAS and LU). From 1997, Director of the Institute of Astronomy of LU. Member of the European Astronomical Society (EAS, 1967), Editor-in-Chief of the magazine *Zvaigžņotā Debess* (1969– 2005).

The first laureates of the prize V. Grabovskis and I. Vilks (2007)

**Pirss BOLS** (1865–1921)—the most outstanding mathematician who has ever lived and worked in Latvia. In 1887, he graduated from the University of Tartu. Since 1895, professor at Rīga Polytechnic School and Rīga Politechnic Institute, in 1919–1921—at the University of Latvia. Remarkable studies in the theory of stability of differential equations and invariants, as well as in celestial mechanics. Founder of the theory of quasiperiodical functions, recognised as one of the authors of the principle of motionless point.

The first winner of the prize is A. Buiķis.

**Fricis BRĪVZEMNIEKS** (1846–1907)—a student of folklore, writer, one of the first collectors, classifiers, and publishers of the Latvian ethnography and folklore materials.

The Fricis Brivzemnieks Prize was awarded to J. Rozenbergs (1996), M. Viksna (1999), and A. Alsupe (2005).

**Fridrihs CANDERS** (1887–1933)—one of the first pioneers of rocket construction in the world. He was born in Rīga, studied at the Rīga Polytechnic Institute from which he graduated in 1914. As a refugee, he went to Russia, when World War I broke out. Ideas of “the sun sail,” “the cosmic hot-house,” and “the cruise missile” belong to him, Fridrihs Canders’ name is given to a crater on the Moon and to one of the small planets.

The Fridrihs Canders Prize follows up the best traditions of the Fridrihs Canders Award established on 7 December 1967. It has been awarded to E. Blūms and J. Mihailovs (1971), G. Teters (1972), J. Uržumcevs and R. Maksimovs (1976), E. Lavendelis (1978), A. Mālmeisters, V. Tamužs, and G. Teters (1981), E. Jakubaitis (1985), A. Bogdanovičs (1989), E. Ščerbiņins and J. Geļfgats (1991), A. Gailītis (1994), P. Prokofjevs and R. Rikards (1996), J. Kotomins and J. Tamopolskis (1998), M. Ābele and A. Skudra (2000), J. Žagars and V. Poļakovs (2002), A. Balklavs-Grīnhofs, and J. Vība (2004), K. Lapuška, and K. Rocēns (2007).

**Walter ZAPP** (1905–2003), an outstanding inventor, with his world-famous photo camera *VEF-Minox* has promoted the name of Latvia to the

world. The prize was established in 2004 together with the Patent Office of the Republic of Latvia.

The first winners of prize are B. Joffe and R. Kalniņš (2005).

**Teodors CELMS** (1893–1989)—an outstanding philosopher. He studied economy and philosophy in Moscow, obtained a doctoral degree in philosophy. Being a widely profiled specialist he has presented lectures in philosophy, cultural philosophy, philosophy of science and technology, as well as in history of technology. From 1944, he lived and worked abroad.

The first winner of prize is M. Kūle.

**Jānis ENDZELĪNS** (1883–1961)—an outstanding Latvian linguist. His scientific studies have influenced the development of the Latvian linguistics and the Baltic Studies in general, which cannot be overestimated; he discussed the historical development of the Latvian language, its present structure, and allied connections.

The Jānis Endzelīns Prize follows up the best traditions of the Jānis Endzelīns Award established on 7 December 1967. It has been attributed to A. Laua (1970), B. Laumane (1974), L. Cepļītis (1976), A. Reķēna (1978), D. Nitiņa (1980), T. Jakubaite (1982), E. Kagaine and S. Raģe (1984), J. Rozenbergs (1986), B. Bušmane (1990), K. Karulis (1994), T. Fennell (1996), V. Rūķe-Draviņa (1998), V. Skujiņa (2001), I. Jansone (2004), and D. Markus (2007).

**Solomons HILLERS** (1915–1975)—professor, full member of the LAS, founder and long-standing director of the Latvian Institute of Organic Synthesis, excellent organiser of Latvia's chemical and pharmaceutical science and industry.

The prize was established in 2004 together with the public joint stock company "Grindex," Latvian Institute of Organic Synthesis, and the Biomedical Research and Study Centre of the University of Latvia. The first winners of the prize are I. Kalviņš (2004), and E. Grēns (2006).

**Arvids KALNIŅŠ** (1894–1981)—a prominent Latvian scientist, founder of wood chemistry and wood chemical technology in Latvia. Professor, full member of the LAS (from 1946), founder and director (1946–1976) of the LAS Institute of Forestry Problems (later, the Institute of Wood Chemistry).

The winners of Arvids Kalniņš prize are P. Eriņš (2000), M. Daugavietis (2002), Ģ. Zaķis (2003), I. Liepa (2004), J. Zandersons (2005), and A. Priedītis ((2006).

**Paulis LEJIŅŠ** (1883–1959)—a prominent Latvian scientist of agriculture, one of the organisers of the University of Latvia and its Faculty of Agri-

culture; since 1932, a professor of agriculture at institutions of higher education in Latvia. The scientific contribution: basic research on the selection of Latvian herds and rational development of forage. The first President of the Latvian Academy of Sciences (1946–1951).

The Paulis Lejiņš Prize has been awarded to J. Latvietis (1994), J. Neilands (1995), A. Boruks (1996), C. Šķiņķis (1997), S. Timšāns (1999), M. Skrīvele (2002), R. Baltakmens, and A. Jemeljanovs (2003), U Osītis (2006), A. Adamovičs (2007).

**Kārlis MĪLENBAHS** (1853–1916)—an outstanding Latvian linguist who has studied syntax, vocabulary, and orthography of the Latvian language. The founder of the Romanized Latvian orthography (1908).

The Kārlis Milēnbahs Prize has been awarded to linguist J. Kušķis (1999), Dz. Hirša (2002), M. Stengrevica (2004), and A. Blinkena (2007).

**Vilis PLŪDONIS** (1874–1940)—a prominent Latvian poet. Worked as a literary critic, compiler of anthologies of poetry and literary readers, publicist, playwright, and teacher.

The Vilis Plūdōnis Prize has been awarded to V. Hausmanis (1996), J. Kursīte-Pakule (1998), B. Kalnačs (2000), I. Daukste-Silasproģe (2003), and Z. Fride (2005).

**RAINIS** (1865–1929)—an outstanding Latvian poet, philosopher, and public figure. The first poet to express the 20th century trends. His monumental plays had a strong impact on the development of Latvian dramatic art.

By his activities in the Constituent Assembly and in three convocations of *Saeima* (Parliament) of the independent Latvia, and also as director of the National Theatre and the Minister of Education (1926–1927), Rainis developed the idea of loyalty to Latvia and presented the people's aspirations towards an ideal progress of society. He also supported the idea of forming an academy of sciences.

A broad philosophical, humanist outlook, lack of any kind of chauvinism or national isolation, and deep respect for the identity of his own and other nationalities form the greatness and imperishability of Rainis.

The Rainis Prize has been awarded to sculptor I. Ranka (1998) and poet I. Ziedonis (2001), poet A. Eglītis (2006).

**Edgars SILIŅŠ** (1927–1998)—one of the most outstanding Latvian physicists, full member of the LAS. In collaboration with the leading chemists of Rīga, he established and developed the school of organic solid state

physics. During the seven last years of his life, he became interested in the basic principles of the world cognition. In 1998, his fundamental monograph “Searches of the Great Truths—Essays on History of Ideas and Paradigms” was completed.

The winners of the Edgars Siliņš Prize are I. Muzikante (1999), A. Gailītis P. Prokofjevs (2001), L. Skuja (2003), and A. Cēbers (2006).

**Heinrichs SKUJA** (1892–1972)—an outstanding Latvian biologist, investigator of flora. In 1944, he emigrated to Sweden, *Doctor honoris causa* of the Uppsala University (1958). He has carried out wide-scale studies of the algae flora in the Baltic Sea, lakes of Latvia and Sweden, etc., discovering and giving scientific descriptions of more than 700 new varieties. A member of the Uppsala Royal Learned Society. Has been awarded the Grand Berkjen’s Prize (1961).

The Heinrichs Skuja Prize has been awarded to M. Selga (1994), A. Piterāns (1996), M. Beķers (1998), A. Āboliņa (2001), M. Balode (2004), and E. Parele (2007).

**Margērs SKUJENIEKS** (1886–1941)—a scientist and politician, Prime Minister, minister, organiser, and director of the State Board of Statistics (1919–1940).

The first winner of Margērs Skujenieks Prize is P. Zvidriņš (2004).

**Pauls STRADIŅŠ** (1896–1958) — a prominent Latvian surgeon, oncologist, and historian of medicine. Has carried out remarkable studies on peripheral nerve surgery, early diagnostics of cancer, and on history of medicine of Latvia. Has organised, formed, and headed the Pauls Stradiņš Clinical University Hospital. On the basis of his private collection, under his leadership, the Museum of History of Medicine was formed in Rīga (1957).

The Pauls Stradiņš Prize follows up the traditions of the Museum of History of Medicine (MHM) Pauls Stradiņš Prize, established in 1993. Since November 1991, the Prize is awarded jointly by the LAS and the MHM.

The Pauls Stradiņš Prize has been awarded to V. Rudzīte and V. Utkins (1992), K. J. Keggi (1994), J. O. Ērenpreiss (1996), I. Lazovskis and K. Zariņš (1998), J. Kļaviņš (2000), J. Volkolākovs (2002), A. Bļugers (2004), and A. Skaģers (2006). During 1983–1998, the prize in the history of medicine was awarded to V. Kaņeps, J. Stradiņš, and P. Gerke (1983), B. Petrov (1984), V. Derums and A. Georgiyevsky (1985), Ņ. Stradiņa and P. Zabłudovsky (1986), K. Ārons and J. Lisitsin (1987), K. Vasiljev and A. Viksna (1988), A. Kaikaris and V. Kalniņš (1989), H. Millers-Dics, I. Krūmāls, and J. Krūmāls (1990), J. Āboliņš and A. Alksnis (1991), Dz. Alks (1993), A. Dirbe (1995), J. Strupulis (1997), Z. Čerfass and E. Larsens (1999), J. Salaks



(2001), V. Kalnbērzs (2001), J. Vētra (2003), K. Habriha, and V. Jākobsons (2005), and E. Platkājs (2007).

**Arveds ŠVĀBE** (1888–1959) — a historian, lawyer, and writer. Has written on folklore, literary criticism, history of literature, has prepared biographical reviews (essays). Also a poet, prosaist, publicist, and translator.

The Arveds Švābe Prize has been awarded to A. Zeids (1996), J. Bērziņš (1998), I. Šterns (2000), I. Šneidere (2003), and A. Zariņa (2007).

**Kārlis ULMANIS** (1877–1942)—an economist and statesman, the first Prime Minister of the Republic of Latvia. The prize was established in 2003 at the initiative of Professor J. Labsvīrs, *Doctor honoris causa* of the LAS.

The first winners of the prize were V. Bērziņš and V. Strīķis (2004), A. Boruks (2006).

**Gustavs VANAGS** (1891–1965)—an outstanding Latvian scientist of organic chemistry. He has created the Latvian school of organic chemistry in chemistry of cyclic beta-diketones. He was among the founders of the Institute of Organic Synthesis, and has developed several preparations and reagents used in medicine, agriculture, and analytical chemistry.

The Gustavs Vanags Prize follows up the best traditions of the Gustavs Vanags Award, established on 7 December 1967. It has been awarded to A. Ārens (1971), E. Gudriniece and A. Strakovs (1972), V. Oškāja (1974), J. Freimanis (1976), O. Neilands (1978), J. Bankovskis (1980), R. Valters (1982), G. Duburs and E. Stankeviča (1984), E. Lukevics (1986), B. Puriņš (1988), M. Lidaka (1990), G. Čipēns (1992), J. Stradiņš (1994), F. Avotiņš and M. Šimanska (1996), T. Millers (1998), M. Kalniņš (2000), I. Kalviņš (2003), E. Liepiņš (2005), and A. Zicmanis (2007).

**Tāivaldis VILCIŅŠ** (1922–1997)—historian and sociologist, professor of history. He graduated from the Faculty of History of the University of Latvia as a correspondence student (1953). Beginning with 1963, he had worked at the Institute of History of the LAS, was the first one to introduce sociological methods in the humanities in Latvia (monograph “The Prestige of Occupations and the Choice of Occupations nowadays,” 1968). He gave a lecture course, “The Mathematical Methods in Sociology,” published more than 60 scientific works including several books.

The winners of Tāivaldis Vilciņš Prize are B. Zepa (2002), and A. Tabuns (2007).

**Alfrēds VĪTOLS** (1878–1945)—an expert in hydromechanics, the first doctor of engineering sciences in Latvia (1923). From 1919 to 1944, associate professor and professor (from 1924) at the University of Latvia. He has taken

part in the development of projects for Ķegums and Dole power plants, for Rīga–Liepāja railway, as well as in a number of other technical projects, intertwining the theoretical foundations of engineering sciences (hydraulics) with practice. In 1944, he emigrated to Sweden; he died in Uppsala.

The winners of Alfrēds Vītols Prize are J. Ekmanis (1999), V. Zēbergs (2002), N. Zeltiņš (2003), J. Barkāns (2004), K. Timermanis (2005), and L. Ribickis (2006).

### THE OUTSTANDING SCIENTISTS WHOSE NAMES HAVE BEEN ATTRIBUTED TO THE LATVIAN ACADEMY OF SCIENCES PRIZES FOR YOUNG SCIENTISTS

**LUDVIGS and MĀRIS JANSONS**—Ludvigs Jansons (1909–1958) and his son Māris Jansons (1936–1997)—Latvian physicists and pedagogues.

Ludvigs Jansons worked at the Chair of Physics, University of Latvia, from 1934 till the end of his life, performing the duties of Vice-Dean and Dean of the Faculty at various periods. After the war, he established faculties of physics both at the University of Latvia and at the Pedagogical Institute. His study-book for students titled “Practical Studies of Physics” (1947) has been republished in 1954, 1961, 1971, and 1979.

Māris Jansons—full member of the LAS, professor. After graduation from the University of Latvia, he worked there all his life. Head of the Department of Spectroscopy (1979–1993), and also Head of the Chair of the Experimental Physics (1989–1993). Since 1994 — Director of the Institute of Nuclear Physics and Spectroscopy.

The Ludvigs and Māris Jansons Prize has been awarded to H. Rjabovs (1999), A. Kuļšs (2000), O. Nikolajeva (2001), J. Alnis (2002), O. Docenko (2003), O. Starkova (2004), K. Blušs (2005), Z. Gavare (2006), and B. Poļakovs (2007).

**Zenta MAURIŅA** (1897–1978)—specialist in literature, cultural philosopher, writer, internationally recognised lecturer, one of the brightest and most tragic personalities in the cultural history of Latvia.

The LAS Zenta Mauriņa Prize has been awarded to Z. Šiliņa (1999), I. Zepa (2001), D. Balode (2002), D. Oļukalne (2003), R. Ceplis (2004), S. Stepena (2005), A. Gaigala (2006), P. Daija (2007).

**Mārtiņš STRAUMANIS and Alfrēds IEVIŅŠ**— prominent Latvian chemists, authors of the fundamentally new and widely used in due course roentgenographic (asymmetric) method for determination of crystal lattice parameters (1935).

Mārtiņš Eduards Straumanis (1898–1973)—graduate from the University of Latvia (1925), lecturer at the University of Latvia (1927–1944), professor of the University of Missouri (USA). Well-known investigator of the metal corrosion, of complex compound chemistry and electrochemistry. M. Straumanis studied also the properties of metals applied in the novel technologies, his achievements in this field being recognised internationally.

Alfrēds Ieviņš (1897–1975)—graduate from the University of Latvia (1924), Doctor of Chemical Sciences (1938), full member of the LAS (1960). His scientific and pedagogical activities were connected with the University of Latvia (till 1958) and the Rīga Politechnic Institute. Scientific interests of A. Ieviņš have been very wide—he has worked in roentgenography, in analytic chemistry, in chemistry of boron compounds. A. Ieviņš has paid great attention to work with young chemists; during nineteen years (1956–1974) he headed the organisation of the contests on chemistry for pupils, lectured for the teachers of chemistry. He was one of the founders of the LAS Institute of Chemistry being also the first Director of the Institute (1946–1953, 1959–1962).

The Mārtiņš Straumanis–Alfrēds Ieviņš Prize has been awarded to M. Turks (1999), T. Ivanova (2000), V. Mihailovs (2001), R. M. Meri (2002), K. Zihmane (2003), I. Juhņeviča (2004), K. Edolfa (2005), L. Černova (2006), E. Erdmane (2007).

**Emilija GUDRINIECE** (1929–2004)—academician of the LAS, professor of the Riga Technical University—outstanding chemist and teacher, founder of the Chair of Organic Synthesis and Biotechnology (1963–1989). Under her leadership the Chair prepared more than 800 specialists of biologically active compounds chemistry, 28 specialists have worked out doctoral thesis. The scientific work of E. Gudriniece was dedicated to heterocyclic compounds, to the investigation of their biological activity, as well as to the possibility of practical usage of the oil from plants in fuel production.

The first laureate of the grant is A. Kotova (2007).

**Kārlis IRBĪTIS** (1904–1997)—aviation constructor and designer. Since 1947 he was working in Canada and has received patents of Canada and USA for his inventions. Honorary doctor of the LAS.

Since 2003, the Kārlis Irbītis Grant has been given to 63 scientists and students.

**Jānis LABSVĪRS** (1907–2002)—economist, historian and publicist, Dr.h.c. of the LAS.

Since 2004 the Jānis Labsvīrs Grant has been given to five students.

**Dītrihs Andrejs LĒBERS** (1923–2004)—lawyer, honorary patron, Foreign member of the LAS, laureate of the Grand Medal of the LAS.

Since 2002, Dītrihs Andrejs Lēbers Grant has been given to 23 students.

**Konstantīns POČS** (1912–1994)—physicist, one of the outstanding scientists and innovators of Latvian origin, Dr.h.c. of the LAS. For more than 30 years has worked at the Laboratory of Air Forces and World Space of USA (Boston, USA), participated in realizing the USA Moon research program and development of the famous AWACS system.

Since 2002, Konstantīns Počs Grant has been given to 15 students.

## PRIZES AND GRANTS OF THE LATVIAN ACADEMY OF SCIENCES AWARDED IN SPONSORSHIP

### *Sponsor*

European Academy  
of Sciences and Arts

### *Prizes*

The European Prize of the European Academy of Sciences and Arts (Felix Prize) and 2 incentive prizes for remarkable achievements in the humanities.

The Prize has been awarded since 2001. The first winner is V. Viķe-Freiberga, incentive prizes—I. Ose and I. Šuvajevs. In 2003—M. Kūle, supporting prizes D. Baltaiskalna and Ē. Jēkabsons, in 2006—V. Zariņš, supporting prizes—R. Blumberga and A. Sprūds.

- Joint stock company  
“Grindex”
- 3 annual prizes* to the most prominent scientists for outstanding achievements or life-long contribution
- The winners are: M. Līdaka, U. Ulmanis, S. Cimermanis (1998), E. Lukevics, O. Lielausis, K. Arājs (1999), O. Neilands, V. Tamužs, V. Bērziņš (2000), V. Kluša, E. Blūms, A. Caune (2001), T. Millers, J. Kristapsons, O. Spārtis (2002), R. M. Freivalds, E. Gudriniece, P. Guļāns (2003), G. Čipēns, I. Knēts, Ē. Mugurēvičs (2004), J. G. Bērziņš, E. Kagaine, A. Strakovs (2005), V. Baumanis, P. Eglīte, J. Dehtjars (2006).
- Joint stock company  
“Aldaris”  
(1999–2004)
- 2 annual prizes* for the most prominent scientists for outstanding achievements or life-long contribution
- The winners are: U. Viesturs, P. Zariņš (1999), M. Beķers, B. Laumane (2000), D. Kārklīņa, M. Poiša (2001), M. Rukliša, V. Hausmanis (2002), I. Apine, Ī. Rašals (2003), Dz. Ērglis, U. Sedmalis (2004). Since 2005 awarding is interrupt.
- Public joint stock  
company  
“Latvenergo”
- 2 annual prizes* to remarkable scientists for outstanding achievements or life-long contribution in engineering sciences and energetics and
- The winners are: Z. Krišāns, I. Staltmanis (1999), K. Briņķis, A. Grundulis (2002), A.S. Sauhats, P. Šipkovs (2003), E. Tomsons, J. Dirba, J. Rozenkrons (2004), D. Blumberga, V. Pugačevs (2005), V. Čuvičins, A. Šniders (2006).
- Joint-stock company  
“Dati Exigen Group”  
and the Education  
Foundation of Latvia
- 2 annual prizes* to remarkable scientists for outstanding achievements or life-long contribution in computer sciences and informatics are granted.
- The winners are: J. Bārzdīņš, A. Anspoks (1999), J. Osis, M. Treimanis (2000), L. Niceckis, A. Vasiļjevs (2001), I. Kabaškins, A. Brūvelis (2002), J. Bičevskis, E. Karnītis (2003), P. Rivža, A. Virtmanis (2005).
- “RD Electronics,” Ltd.  
(until 2005  
JST “RD Alfa”)
- a yearly prize* in physics and its applications.
- The winners are: K. Švarcs (2000), J. Gelfgats (2001), A. Cēbers (2002), D. Millers (2003), A. Truhins (2004), J. Joļins (2005), I. Bērsons (2006), L. Skuja (2007).

Joint stock company “ITERA Latvija” and the Education Foundation of Latvia      2 *annual prizes* to remarkable scientists and specialists—practitioners of Latvia for outstanding achievements or life-long contribution in environmental sciences, earth sciences, and geography or for the advancement of significant systems of environmental development are granted.

The winners are: G. Andrušaitis, A. Melluma (2001), G. Eberhards, R. Kondratovičs (2002), A. Andrušaitis, M. Kļaviņš (2003), E. Kaufmane, J. Viksne (2004), V. Jansons, V. Melecis (2005), G. Pētersons, P. Zālītis (2006).

“Lattelekom,” Ltd., and the Education Foundation of Latvia      2 *annual prizes* to remarkable Latvian scientists and creative practitioners in the field of telecommunications and in social humanitarian sciences for outstanding contribution or life-long work.

The winners are: J. Ločmelis, Dz. Ozoliņa (2002), T. Galdiņš, T. Tisenkopfs (2003), I. Biļinskis, I. Loze (2004), J. Busarovs, J. Rubins (2005), A. Dimants, J. Merkurjevs (2006). Since 2007 awarding is interrupt.

Joint stock company “Latvijas Gaisa satiksme” and the Education Foundation of Latvia      2 *annual prizes* to remarkable Latvian scientists and practitioners for outstanding results or life-long work in space information technology and engineering developments in aero-navigation communications and radiolocation technologies are granted.

The winners are: E. Bervalds, I. Kabaškins (2001), J. Kopitovs, M. Ābele, K. Lapuška (2003), J. Artjuhs, J. Žagars (2005).

Joint stock company “Latvijas gāze” and the Education Foundation of Latvia      2 *annual prizes* to remarkable scientists and practitioners for outstanding series of papers or life achievement in gas and heat technologies, and the related fields, and in heart surgery and the science of cardiology are granted.

The winners are: R. Lācis, A. Krēsliņš (2002), J. Anšelevičs. E. Dzelzītis (2003), J. Volkolakovs, V. Zēbergs (2004), I. Siliņš, N. Zeltiņš (2005), V. Rudzīte, D. Turlajs (2006).

The Rīga City Council and the Rīga Prize Society Annual “Rīga Prize” for the most significant scientific study in the history, history of culture, history of architecture and art, in ethnography, demography and ethnic relations, geography, ecology, and in other fields related with the development of Rīga.

The Prize has been awarded to J. Krastiņš, K. Radziņa, A. Celmiņš, incentive prize – V. Bebre, R. Spirģis (2002), A. Caune, O. Spārītis, O. Zanders (2003), L. Balodis, J. Stradiņš, M. Zunde (2004), J. Bērziņš, V. Viķe-Freiberga, A. Holcmanis, J. Viksne, J. Savickis (2005), V. Apsītis, J. Ekmanis, I. Knēts, V. Jākobsons (2006).

D. A. Lēbers has been awarded Honorary Diploma “Rīga Prize” (post mortum).

Patent Office of the Republic of Latvia The *Walter Zapp Prize*—to the best inventor. The prize is awarded biennially

The winners are: B. Joffe and R. Kalniņš (2005)

Latvian Institute of Organic Synthesis, JSC “Grindex,” and Biomedical Research and Study Centre *Solomons Hillers Prize*—for outstanding achievements in biomedicine and elaboration of new medicinal preparations

The winners are: I. Kalviņš (2004), E. Grēns (2006)

SIA “L’OREAL BALTIC,” Latvian National Commission for UNESCO *3 years grant* “To women in science” for carrying out scientific research in life sciences and materials sciences.

Grants have been given to R. Muceniece, A. Linē, A. Zajakina (2005), M. Dambrova, O. Starkova, M. Plotniece (2006)

S/C “Latvijas dzelzceļš” and Education Foundation of Latvia *yearly prize* for outstanding merits or life-long work in Latvian Railway transport.

## PRIZES AND AWARDS TO YOUNG SCIENTISTS

LATVIAN ACADEMY OF SCIENCES PRIZES AND AWARDS  
TO YOUNG SCIENTISTS

Awards based on competition of works are granted to Master's degree students or post-graduate students, or young scientists who have defended their Master's or Doctoral thesis recently. Only papers written individually by scientists not older than 30 years at the moment of application are admissible. Nine awards are granted annually, including three in chemical, biological, agricultural, and medical sciences, three in physical, mathematical, engineering, and computer sciences, and three in the humanities and social sciences. Among them there are prizes dedicated to the continuity of Latvian science traditions and to the memory of outstanding personalities in science and culture:

*Ludvigs and Māris Jansons Prize*— for the best work in physics,

*Mārtiņš Straumanis–Alfrēds Ieviņš Prize*— for the best work in chemistry,

*Zenta Mauriņa Prize*— for the best work in literary studies and philosophy.

The papers for the young scientists' contest should be submitted by 31 October 2007 at the secretariat or scientific divisions of the LAS, Akadēmijas laukums 1, 2nd floor, Rīga, LV 1524. Tel.: (371) 7223931.

PRIZES AND GRANTS OF THE LATVIAN ACADEMY  
OF SCIENCES AWARDED IN SPONSORSHIP TO YOUNG  
SCIENTISTS AND STUDENTS

<i>Sponsor</i>	<i>Prizes</i>
Emīlija Gudriniece	<i>to the best young scientist</i> in chemistry or chemical technology
Emīlija Gudriniece	Emīlija Gudriniece–Alfrēds Ieviņš <i>annual grant</i> to the students of Bachelor's, Master's degrees and engineering programmes in chemistry and chemical technology



- S/c “Grindex” *4 annual prizes* to the best young scientists
- S/c “Latvenergo” *5 yearly prizes* to the best young scientists for the works in energy sciences or respective engineering sciences
- “RD Electronics,” Ltd. (till 2005 S/c “RD Alfa”) *1 annual prize* to the students of physics and respective engineering applications for research work and original results
- S/c “Latvija Gāze” and the Latvian Education Foundation *2 fellowships* to the Doctoral students of gas and thermo-technical technologies and coronal surgery – cardiology
- S/c “Latvijas Gaisa satiksme” and the Latvian Education Foundation Kārlis Irbītis *annual fellowship* to the student of Doctoral, Master's, Bachelor's degree or the student of cosmic information technology engineering applications in aeronavigation communications and radiolocation technique
- S/c “Latvijas Dzelzceļš” and the Latvian Education Foundation *annual prize* to the student of Master's, Doctoral degree, scientist for research work in the field of railway transport

WINNERS OF THE GRAND MEDAL, PRIZES, AND AWARDS  
OF THE LATVIAN ACADEMY OF SCIENCES

WINNERS OF THE LAS GRAND MEDAL IN 2005–2007

**Rihards Kondratovičs**, full member of the LAS, University of Latvia—for his remarkable contribution to rhododendron breeding (LAS Senate decision of 7 March 2005).

**Trevor Fennel**, foreign member of the LAS (Australia)—for contribution to the development of Latvian historical linguistics and publication and comment of the evidences of the Latvian language (LAS Senate decision of 7 March 2005).

**Viktors Hausmanis**, full member of the LAS, Institute of Literature, Folklore, and Arts, University of Latvia—for remarkable contribution to the research of Latvian dramatic arts and history of theatre (LAS Senate decision of 13 March 2007).

**Robert Evarestov**, foreign member of the LAS (Russia)—for essential contribution and active participation in the establishment of the school of solid state quantum chemistry in Latvia (LAS Senate decision of 13 March 2007).

LAUREATES OF THE EUROPEAN PRIZE OF THE EUROPEAN  
ACADEMY OF SCIENCES AND ARTS  
(JOINTLY WITH THE LATVIAN ACADEMY OF SCIENCES)

(Decision by the Expert Commission of 5 September 2006)

**Vilnis Zariņš**, corresponding member of the LAS, Institute of Philosophy and Sociology, University of Latvia—the European Prize of the European Academy of Sciences and Arts (*Felix Prize*), for his lifelong contribution to the philosophy in Latvia, for his numerous translations from the French and German languages, for his activities introducing the series of classical works in philosophy “Avots,” as well as for tireless education of the new generation of philosophers.

**Renāte Blumberga**, *Dr.hist.*, Institute of History of Latvia, University of Latvia—consolation prize for the monographic work “Livish People in Documents and Letters: Expeditions of Finnish Scientists to Livish People.”

**Andris Sprūds**, *Dr.sc.pol.*, Faculty of European Studies at Rīga Stradiņš University—consolation prize for investigations of business factor in Latvian – Russian relations: co-operation and competition.

WINNERS OF THE LAS PRIZES 2005–2007

(LAS Senate decision of 10 January 2006)

**Arturs Boruks**, *Dr.habil.agr.*, State Emeritus Scientist—*The Kārlis Ulmanis Prize* for life-long contribution to the research of agricultural economy in Latvia.

**Andrejs Cēbers**, full member of the LAS, Institute of Physics, University of Latvia—*The Edgars Siliņš Prize* for series of works “Soft Magnetic Materials and their Functional Possibilities.”

**Andrejs Eglītis**, honorary member of the LAS—*The Jānis Rainis Prize* for remarkable contribution to Latvian culture and social life.

**Elmārs Grēns**, full member of the LAS, Biomedical Research and Study Centre, University of Latvia—*The Solomons Hillers Prize* for remarkable achievements in molecular biology and gene technology.

**Maija Kūle**, full member of the LAS, Institute of Philosophy and Sociology, University of Latvia—*The Teodors Celms Prize* for merits in the development of Latvian philosophical thought.

**Uldis Osītis**, *Dr.agr.*, Latvia University of Agriculture— The Paulis Lejiņš Prize for his monograph “An Integrated Approach to Animal Nutrition.”

**Arvīds Priedītis**, *Dr.biol.*, Latvian State Forestry Research Institute “Silava”—*The Arvīds Kalniņš Prize* for his series of works “Assesing Forest and Cervids Interaction.”

**Andrejs Skaģers**, corresponding member of the LAS, Rīga Stradiņš University—*The Pauls Stradiņš Prize* for contribution to the development of maxillofacial surgery in Latvia and implementation of new technologies in clinics.

**Andris Buiķis**, full member of the LAS, Institute of Mathematics, University of Latvia and LAS—*The Pīrss Bols Prize* for the series of papers “Method of Conservative Averaging. Theory and Applications” (LAS Senate decision of 18 October 2005).

(LAS Senate decision of 16 January 2007)

**Aleksandrs Adamovičs**, *Dr.agr.*, Latvia University of Agriculture—*The Paulis Lejiņš Prize* for a series of research “Environmental Factors Determining Grassland Agrophytocenosis Productivity and Forage Quality in Latvia.”

**Aina Blinkena**, full member of the LAS—*The Kārlis Milenbahs Prize* in applied Latvian linguistics for remarkable contribution to perfection of the Latvian language culture.

**Vitolds Grabovskis**, *Dr.phys.*, and **Ilgonis Vilks**, *Dr.paed.*, *The Arturs Balklavs prize for popularisation of science*—for popularisation of science in Latvia, incl. establishment and management of the magazine *Terra*.

**Raita Karnīte**, full member of the LAS, Institute of Economics, SIA—*The Kārlis Balodis Prize in national economy* for series of scientific works with a common subject, “Integration of Latvian National Economy in the European Union.”

**Kazimirs Lapuška**, *Dr.phys.*, Institute of Astronomy, University of Latvia—*The Frīdrihs Canders Prize in astronomy* for life-long contribution to the development of astronomy in Latvia.

**Dace Markus**, full member of the LAS, RTTEMA, Faculty of Philology, University of Latvia—*The Jānis Endzelīns Prize* in Latvian linguistics for research work in Latvian phonetics and phonology, as well as for reasearch work in child’s language.

**Elga Parele**, *Dr.biol.*, Institute of Biology, University of Latvia—*The Heinrichs Skuja Prize in biological sciences* for series of scientific works with a common subject, “Zoobenthos in Inner Overground Waters in Latvia.”

**Kārlis Rocēns**, full member of the LAS, Rīga Technical University—*The Frīdrihs Canders Prize in mechanics* for outstanding contribution to elaboration of calculation methods and technologies for composite materials and complicate dimensional constructions.

**Aivars Tabuns**, corresponding member of the LAS, Faculty of Social Sciences, University of Latvia—*The Tāļivaldis Vilciņš Prize in sociology* for his contribution to the investigation of current social processes.

**Anna Zariņa**, *Dr.habil.hist.*, Institute of History of Latvia, University of Latvia—*The Arveds Švābe Prize in history of Latvia* for a monograph “Salaspils Laukskola Cemetery, 10th–13th centuries.”

**Andris Zicmanis**, corresponding member of the LAS, University of Latvia—*The Gustavs Vanags Prize in chemical sciences* for series of works “Organic synthesis in coherence with untraditional materials.”

WINNERS OF WALTER ZAPP PRIZE OF THE LAS AND  
THE PATENT OFFICE OF THE REPUBLIC OF LATVIA

**Benjamiņš Joffe**, *Dr.phys.h.c.* (USA) and **Roberts Kalniņš**, *Dr. phys.*, Institute of Physics, University of Latvia—for significant inventions in the automatic manipulation of objects using the electromagnetic field (EMAGO) (2005).

WINNERS OF THE LAS AND PUBLIC JOINT STOCK COMPANY  
“GRINDEX” PRIZES

**Jānis Guntis Bērziņš**, full member of the LAS, Institute of Physics, University of Latvia—for outstanding achievements in nuclear spectroscopies and its application for determination of environmental pollution (2005).

**Elga Kagaine**, *Doctor honoris causa* of the LAS, Latvian Language Institute, University of Latvia—for the research work “Local Finno-Ugrianisms in the North West Vidzeme Dialects of the Latvian Language” (2005).

**Andris Strakovs**, full member of the LAS, Rīga Technical University—for contribution to education of specialists of medical substances and achievements in heterocyclic chemistry (2005).

**Viesturs Baumanis**, honorary member of the LAS, University of Latvia—for significant research work in molecular epidemiology of infection diseases caused by viruses and bacteriae in Latvia (2006).

**Pārsla Eglīte**, corresponding member of the LAS, Institute of Economics, SIA—for research work in social demography (2006).

**Jurijs Dehtjars**, corresponding member of the LAS, Rīga Technical University—for outstanding achievements in investigation of electromagnetic features of human bone material and successful creation of study programmes in Medical Physics and Engineering in the RTU (2006).

WINNERS OF PRIZES JOINTLY AWARDED BY THE LAS, JOINT  
STOCK COMPANY “DATI EXIGEN GROUP” AND THE LATVIAN  
FOUNDATION OF EDUCATION

**Pēteris Rivža**, *Dr.habil.sc.ing.*, Latvia University of Agriculture—for the foundation of IT studies in the LUA as well as for significant research work in the field of ICT (2005).

**Andris Virtmanis**, director of Electronic Communications and Post Department, Public Utilities Commission of the Republic of Latvia—for outstanding contribution to the foundation of unified ICT state structures and their management, as well as for co-authorship in IT National Programme and its realisation (2005).

**Jānis Bārzdīņš**, full member of the LAS, Institute of Mathematics and Computer Science, University of Latvia—*The Eižens Āriņš Prize* for life-long contribution to computer sciences and IT (2006).

WINNERS OF PRIZES JOINTLY AWARDED BY THE LAS, JOINT STOCK COMPANY "ITERA-LATVIJA" AND THE LATVIAN FOUNDATION OF EDUCATION

**Viesturs Jansons**, *Dr.biol.*, Latvia University of Agriculture—for a series of scientific works, "Impact of the Agriculture on Water Quality in Latvia" (2005).

**Viesturs Melecis**, corresponding member of the LAS, Institute of Biology, University of Latvia—for a series of scientific works, "Environmental Assessment by Bioindicators" (2005).

**Pēteris Zālītis**, corresponding member of the LAS, Latvian State Forestry Research Institute "Silava"—for life-long contribution to environmental sciences and for the monograph "Forestry Preconditions" (2006).

**Gunārs Pētersons**, *Dr.biol.*, Latvia University of Agriculture—for a work "Distribution Patterns and Seasonal Migrations of the Bat (*Chiroptera*) Populations in Latvia" (2006).

WINNERS OF "THE RĪGA PRIZE" AWARDED BY THE LATVIAN ACADEMY OF SCIENCES AND "THE RĪGA PRIZE" SOCIETY

**Jānis Bērziņš**, full member of the LAS, Institute of History of Latvia, University of Latvia—for research work in the history of industry workers of Rīga at the end of 19th and the beginning of the 20th centuries (2005).

**Vaira Viķe-Freiberga**, full member of the LAS, President of the State of Latvia—for raising world prestige of Rīga – the capital of Latvia and metropolis of the Baltics (2005).

**Andrejs Holcmanis**, *Dr.arch.c.h.*, Department of the Rīga City Development—for research works in architecture and urban construction of Rīga (2005).

**Jānis Viksne**, corresponding member of the LAS, Institute of Biology, University of Latvia—for the studies of birds in Rīga urban environment (2005).

**Juris Savickis**, President of "ITERA Latvija"—for contribution to patronship of science (2005).

**Vaidelotis Apsītis**, honorary member of the LAS—for contribution to research and popularisation of the history of architecture and monuments of Rīga (2006).

**Juris Ekmanis**, full member of the LAS, Institute of Physical Energetics, Latvian Academy of Sciences—for contribution to the development of physics and power science and the Rīga heat supply system (2006).

**Ivars Knēts**, full member of the LAS, Rīga Technical University—for contribution to biomechanical science and education of specialists of engineering sciences in Latvia (2006).

**Valdis Jākobsons**, honorary member of the LAS, JSC “Grindex”—for contribution to patronship of science and improvement of pharmaceutical traditions in Rīga.

**Genādijs Stepanovs**, sculptor—for contribution to establishment of Riga cultural environment in the field of restoration and sculpture (2006).

**“BIOSAN,”** SIA—for significant contribution to the establishment and development of an innovative enterprise (2006).

WINNERS OF PRIZES JOINTLY AWARDED BY THE LAS,  
JOINT STOCK COMPANY “LATVIJAS GĀZE,” AND THE LATVIAN  
FOUNDATION OF EDUCATION

**Ivars Siliņš**, *Dr.habil.med.*, Rīga Stradiņš University—for life-long contribution to cardiology (2005).

**Namejs Zeltiņš**, *Dr.habil.sc.ing.*, Institute of Physical Energetics, Latvian Academy of Sciences—for a series of works, “Complex Investigation of Natural Gas Efficiency: Transport, Storage and Utilisation” (2005).

**Vera Rudzīte**, full member of the LAS—for life long contribution to development of the field of cardiology in Latvia (2006).

**Daniels Turlajs**, *Dr.habil.sc.ing.*, Rīga Technical University—for a series of works, “Effective Utilisation of Natural Gas in Fuel Balance of Latvia” (2006).

WINNERS OF THE LAS AND PUBLIC JOINT STOCK COMPANY  
“LATVENERGO” PRIZES

**Kārlis Timermanis**, *Dr.habil.sc.ing.*, Rīga Technical University—*The Alfrēds Vītols Prize* for life-long contribution to the terminology of energy sciences with a series of works, “Latvian Energy Terminology” (2005).

**Dagnija Blumberga**, *Dr.habil.sc.ing.*, Rīga Technical University—for a series of works, “Energoeffectiveness and the decrease of its influence on climate change” (2005).

**Vladislavs Pugačevs**, *Dr.habil.sc.ing.*, Institute of Physical Energetics, Latvian Academy of Sciences—for a series of works, “Low Speed Electric Machines for Direct Drive Systems of Generation and Control for Wind Mills” (2005).

**Leonīds Ribickis**, corresponding member of the LAS, Rīga Technical University—*The Alfrēds Vītols Prize* for a series of works, “Work and Research for the Development of Power Engineering and Innovation in Latvia” (2006).

**Vladimirs Čuvičins**, *Dr.habil.sc.ing.*, Rīga Technical University—for a series of works “Promotion of the Development of Energetics and Formation of Innovation Environment in Latvia” (2006).

**Andris Šniders**, *Dr.habil.sc.ing.*, Latvia University of Agriculture—for a series of works in agricultural energetics (2006).

WINNERS OF PRIZES JOINTLY AWARDED BY THE LAS,  
JOINT STOCK COMPANY “LATVIJAS GAISA SATIKSME” AND  
THE LATVIAN FOUNDATION OF EDUCATION

**Jurijs Artjuhs**, *Dr.habil.sc.comp.*, Institute of Electronics and Computer Sciences, University of Latvia—for the work “Time Measurement Systems for Laser Location of Satellites Created in Latvia” (2005).

**Juris Žagars**, corresponding member of the LAS, Ventspils International Radioastronomy Centre—for a series of works, “Elaboration and Realisation of Educational Field of Cosmic Information Technologies” (2005).

WINNERS OF PRIZES JOINTLY AWARDED BY THE LAS,  
LATTELEKOM SIA AND THE LATVIAN FOUNDATION  
OF EDUCATION

**Ainārs Dimants**, *Dr.phil.*, School of Business Administration “Turība”—for the work “Development of Mass Media after the Second Independence” (2006).

**Jurijs Merkurjevs**, corresponding member of the LAS, Riga Technical University—for a series of works “Development and Application of Logistics Systems Simulation Methods and Works” (2006).



**Gunārs Raņķis**, *Dr.habil.sc.ing.*, State Emeritus scientist, Rīga Technical University—for contribution to the development of telecommunications in Latvia (2006).

WINNERS OF THE LAS AND “RD ELECTRONICS,” Ltd., PRIZES  
IN PHYSICS AND ITS APPLICATIONS

**Imants Bērsons**, corresponding member of the LAS, University of Latvia—for outstanding works in the theory of interaction of atoms and strong laser radiation (2006).

**Linars Skuja**, full member of the LAS, Institute of Solid State Physics, University of Latvia—for outstanding works in optical glass physics (2007).

LAUREATES OF THE L'ORÉAL GRANTS  
“FOR WOMEN IN SCIENCE”

(with the support of the UNESCO Latvian Commission and  
the Latvian Academy of Sciences)

**Ruta Muceniece**, corresponding member of the LAS, University of Latvia—for the project “The role of melanocortins and plant antioxidants in inhibition of neuroinflammation and oxidative stress in the initial stage of neurodegenerative processes” (2005).

**Aija Linē**, *Dr.biol.*, Biomedical Research and Study Centre, University of Latvia—for the project “The Role of Genetic Factors in Effectiveness of Cisplatin Treatment Therapy for Patients with Lung Cancer” (2005).

**Anna Zajakina**, *Dr.biol.*, Biomedical Research and Study Centre, University of Latvia—for the project “Reconstruction of Hepatitis B Virus with the Help of Alphavirus Replicon” (2005).

**Maija Dambrova**, *Dr.pharm.*, Latvian Institute of Organic Synthesis—for the project “The Role of Nuclear Factor  $\kappa$ B in Cardiac Cell Survival under Ischemic Conditions” (2006).

**Oļesja Starkova**, *Mg.*, doctoral student, Institute of Polymer Mechanics, University of Latvia—for the project “Evaluation of Limits of Linear Viscoelastic Behavior of Polymers” (2006).

**Māra Plotniece**, *Dr.chem.*, Rīga Technical University Faculty of Material Sciences and Applied Chemistry—for the project “Modification of Fullerene and Its Derivatives for Electrochemical Investigation and Increasing of Solubility” (2006).

## WINNERS OF OTHER SIGNIFICANT PRIZES IN SCIENCE

- Ivars Kalviņš**, full member of the LAS—Certificate and Golden Medal of World Intellectual Property Organisation (WIPO) for long-term and highly productive work as inventor (2005).
- Saulvedis Cimermanis**, full member of the LAS—*the 2005 Prize of the Cabinet of Ministers of the Republic of Latvia* for outstanding contribution to investigation of Latvian traditional culture and sources of *Lettonics* (Latvian studies).
- Jānis Gardovskis**, corresponding member of the LAS—*the 2005 Prize of the Cabinet of Ministers of the Republic of Latvia* for significant contribution to the development of modern surgery, medical sciences, and academical education in the field of medicine in Latvia.
- Kalvis Torgāns**, full member of the LAS, work group elaborating Commentary of Civil Law—*the 2005 Prize of the Cabinet of Ministers of the Republic of Latvia* for significant contribution to the development of the judicial Latvian state.
- Vaira Viķe-Freiberga**, full member of the LAS (President of the Republic of Latvia)—*Hannah Arend Prize “For political thought”* for the role in adoption of significant decisions regarding the future of Europe (handed in Bremen, 16 December 2005).
- Ēvalds Mugurēvičs**, full member of the LAS—award of the Baltic Assembly for translation from Latin of “Hermann de Wartberge Chronicon Livoniae” and the commentary to it (2005).
- Uldis Bērziņš**, honorary member of the LAS—*2005 Diena Prize in Culture* for the translation of *Slavinājumi. Psalmu grāmata* (Praises. The Book of Psalms).
- Baiba Rivža**, full member of the LAS—*Jānis Bisenieks Prize* to the heiress of J. Bisenieks for the efforts, innovative attitude, ardour and devotion to society (2005).
- Džemma Skulme**, honorary member of the LAS—*The Three Brothers Prize* in culture of the Ministry of Culture of the RL for life-long contribution to cultivation of national culture (2005).
- Institute of Literature, Folklore and Arts, University of Latvia** for the project “Virtual Cabinet of Folksongs” and the creative team: **Imants Freibergs**, *Doctor honoris causa* of the LAS, Harijs Bondars, Ainars Brūvelis, Aldis Pūtelis—*The Three Brothers Prize in culture of the Ministry of Culture of the RL* in the nomination “Society of Culture and Knowledge” (2005).

**Vitauts Tamužs**, full member of the LAS—Certificate of Merit of the Cabinet of Ministers of the RL for significant contribution to materials mechanics (2005).

**Paulis Lazda**, *Doctor honoris causa* of the LAS—WFFL year 2005 prize for the initiative to create the Museum of Occupation and the persistent job while implementing the idea.

**Viktors Hausmanis**, full member of the LAS—*Andrejs Krastkalns Prize* of the Rīga Latvian Society for the monograph *Latvian theatre in exile* (2005).

**Ivars Kalviņš**, full member of the LAS—*the 2006 Prize of the Cabinet of Ministers of the Republic of Latvia* for outstanding achievements in science and a series of works “Creation and Implementation of Original Medicine in Clinical Practice.”

**Agnis Andžāns**, corresponding member of the LAS—*the 2006 Prize of the Cabinet of Ministers of the Republic of Latvia* for significant contribution and achievements in education of young mathematicians, improvement of the contents of studies and popularisation of mathematics.

**Andrejs Ērglis**, *Dr.med.*, Pauls Stradiņš Clinical University Hospital—*the 2006 Prize of the Cabinet of Ministers of the Republic of Latvia* for great and significant contribution to the development of invasive cardiology in Latvia.

**Gunārs Duburs**, full member of the LAS—Certificate and Gold Medal of World Intellectual Property Organisation (WIPO) “Best inventor of 2006.”

**Viktors Hausmanis**, full member of the LAS—Anšlavs Eglītis and Veronika Janelsiņa foundation year 2006 Prize of Merit for the book *Anšlavs Eglītis* (Zinātne, 2005) (2006).

**Māris Kļaviņš**, full member of the LAS—prize of the competition of Patent Office of the Republic of Latvia and the LAS for the best invention “New method for immobilisation of humic substances” (2006).

**Valentīna Skujiņa**, full member of the LAS—International Information Centre of Terminology (Infoterm) *Eugen Wüster Special Prize* in recognition of indefatigable efforts in advancing and promoting the discipline of terminology.

**Juris Ekmanis**, full member of the LAS—Medal of JSC “Latvenergo” for outstanding contribution to the development of “Latvenergo” (2006).

**Heinrihs Strods**, honorary member of the LAS—*Certificate of Honour, Ministry of Defence of the Republic of Latvia, for preparation of “Martyrology of citizens of Latvia in Viatlag. 1938–1956”* (2006).

**Oļģerts Kroders**, honorary member of the LAS—yearly *Three Brothers Prize* in culture, Ministry of Culture of the RL for life-long contribution to development of theatre arts in Latvia (2006).

**Renāte Blumberga**, *Dr. hist.*, Institute of History of Latvia, University of Latvia—*Spīdola Prize of the Latvian Culture Foundation* for the monographic work *Livish People in Documents and Letters: Expeditions of Finnish Scientists to Livish People* (2006).

**Jānis Stradiņš, Edmunds Lukevics**, full members of the LAS, **Alla Sko-rova**—Prof. A. N. Kosta Memorial Medal, Mendeleev Russian Chemical Society and Moscow State University (2006).

WINNERS OF PRIZES AND AWARDS  
FOR YOUNG SCIENTISTS

WINNERS OF THE PRIZES AND AWARDS OF THE LATVIAN  
ACADEMY OF SCIENCES FOR YOUNG SCIENTISTS

*Prizes*

(LAS Senate decision of 10 January 2006)

**Zanda Gavare, Mg.**, University of Latvia—*Ludvigs and Māris Jansons Prize in physics* for the work “Spectral Diagnostics of Argon/Hydrogen Electrodeless Low-temperature Plasmas” (supervisor *Dr.phys.* A. Skudra).

**Laura Černova, Mg.**, Latvian Institute of Organic Synthesis—*Mārtiņš Straumanis – Alfrēds Ieviņš Prize* in chemistry for the work “Atom Economical and Environmentally Friendly Synthesis of 6-alkylthio-1,4-dihydropyridines and 3-amino-4,7-dihydrothieno[2,3-b]pyridines” (supervisor *Dr.chem.* A. Krauze).

**Austra Gaigala, Mg.**, University of Latvia—*Zenta Mauriņa Prize* in literature studies for work “Creative Work of Juris Kunoss” (supervisor A. Cimdiņa, corresponding member of the LAS).

(LAS Senate decision of 16 January 2007)

**Boriss Poļakovs, Dr.phys.**, Institute of Chemical Physics, University of Latvia—*Ludvigs and Māris Jansons Prize in physics* for the work “Structure, Mechanical and Electroconductive Properties of Nanomaterials” (supervisor *Dr.chem.* D. Erts).

**Elīna Erdmane, Mg.**, Faculty of Chemistry, University of Latvia—*Mārtiņš Straumanis – Alfrēds Ieviņš Prize in chemistry* for the work “Methods of Preparation of 3,6-disubstituted imidazo[2,1-b]thiazoles, for parallel synthesis” (supervisors A. Zicmanis, corresponding member of the LAS, and *Dr.chem.* R. Zemribo).

**Pauls Daija**, 4th year student of the Faculty of Philology, University of Latvia—*Zenta Mauriņa Prize in literature studies and philosophy* for the work “Journal “Latviska Gada Grāmata” (Latvian Annual) (1797–1798). Ideas. Authors. Epoch.” (supervisor *Dr.philol.* M. Grudule).

**Anastasija Kotova, Mg.**, Faculty of Material Sciences and Applied chemistry, Rīga Technical University—*Emīlija Gudriniece Prize in chemistry* for the work “Synthesis of the Potential Metabolites of Primary Amines—N-Glucosides and Amadori Products” (supervisors *Dr.chem.* V. Kauss, *Mg.* J. Rožkovs).

*In Physical and Technical Sciences*

**Ivars Javaitis**, *Mg.*, University of Latvia (supervisor A. Cēbers, full member of the LAS) (2006).

**Anatolijs Šarakovskis**, *Mg.*, Institute of Solid State Physics, University of Latvia (supervisor *Dr.habil.phys.* M. Sprinģis) (2006).

**Ilze Dzelme-Bērziņa**, *Mg.*, Faculty of Physics and Mathematics, University of Latvia (supervisor R. M. Freivalds, full member of the LAS) (2007).

**Tatjana Glaskova**, Master's degree student, technician of Institute of Polymer Mechanics, University of Latvia (supervisors *Dr.sc.ing.* K. Aņiskeviča un *Dr.habil.sc.ing.* V. Tamužs) (2007).

*In Chemical, Biological and Medical Sciences*

**Kristīne Aksjonova**, *Mg.*, Rīga Technical University (supervisor P. Trapencieris, corresponding member of the LAS) (2006).

**Jānis Šīre**, *Mg.*, University of Latvia (supervisor M. Kļaviņš, full member of the LAS) (2006).

**Anna Mežaka**, *Mg.*, Faculty of Biology, University of Latvia (supervisor *Dr.habil.biol.* A. Piterāns) (2007).

**Ilze Viškere**, *Mg.*, Faculty of Material Sciences and Applied Chemistry, Rīga Technical University (supervisor V. Tupureina) (2007).

*In Social Sciences and Humanities*

**Vineta Ivanova**, *Mg.*, Liepāja Pedagogical Academy (supervisor *Dr.paed.* A. Kuduma) (2006).

**Ilze Štrausa**, *Mg.*, University of Latvia (supervisor *Dr.philol.* L. Balode) (2006).

**Mārtiņš Kaprāns**, *Mg.*, doctoral student, Faculty of Social Sciences (supervisor *Dr.hist.* V. Zelče) (2007).

**Kaspars Šlihta**, *Bc.*, Faculty of Theology, University of Latvia (supervisor *Dr.teol.* R. Kokins) (2007).

The LAS Senate noted the good scientific standard of the works submitted to the competition by young scientists, and decided that a number of other authors deserved a special acknowledgement as well.

**Inga Kope**, *Mg.*, Liepāja Pedagogical Academy (supervisor *Dr.philol.* E. Lāms) (2006).

**Roberts Innuss**, National Academy of Defence (supervisor *Dr.paed.* L. Čupriks) (2006).

**Guna Rudzīte**, *Mg.*, Liepāja Pedagogical Academy (2006).

**Evelīna Špakoviča**, *Dr.oec.*, Latvia University of Agriculture (supervisor *Dr.habil.agr.* K. Špoģis) (2006).

**Aija Dirnēna**, *Mg.*, Liepāja Pedagogical Academy (supervisor *Dr.philol.* E. Lāms) (2007).

**Liene Markus-Narvila**, *Mg.*, Liepāja Pedagogical Academy (supervisor *Dr.philol.* Z. Gūtmane) (2007).

**Sandra Muižniece-Brasava**, *Dr.sc.ing.*, Latvia University of Agriculture (supervisor *Dr.habil.sc.ing.* L. Dukaļska) (2007).

**Jana Svare**, *Mg.*, Rīga Technical University (supervisor *Dr.sc.ing.* I. Vītiņa) (2007).

**Nadežda Tihomirova**, *Mg.*, Rīga Technical University (supervisor J. Merkurjevs, corresponding member of the LAS) (2007).

**Edmunds Zīle**, *Mg.*, Institute of Polymer Mechanics, University of Latvia (supervisor V. Tamužs, full member of the LAS) (2007).

#### WINNERS OF THE LAS PRIZES FOR YOUNG SCIENTISTS AWARDED IN SPONSORSHIP

**Jeļena Butikova**, *Mg.*, doctoral student, University of Latvia (supervisor *Dr.biol.* T. Freivalds), in sponsorship with the public joint stock company “Grindex” (2005).

**Mārtiņš Kalējs**, 6th year student, Rīga Stradiņš University, Biomedical Research and Study Centre, University of Latvia (supervisor J. Ērenpreisa, full member of the LAS) in sponsorship with the public joint stock company “Grindex” (2005).

**Arnis Mincenhovs**, *Mg.*, Liepāja Pedagogical Academy (supervisor *Dr.philol.* E. Lāms) in sponsorship with the public joint stock company “Grindex” (2005).

- Kārlis Pajuste**, *Mg.*, doctoral student, University of Latvia, Latvian Institute of Organic Synthesis (supervisors *Dr.chem.* A. Plotniece, A. Zicmanis, corresponding member of the LAS), in sponsorship with the public joint stock company “Grindex” (2005).
- Dace Ērkške**, *Mg.*, doctoral student, Institute of Polymer mechanics of Rīga Technical University (supervisor V. Tupureina), in sponsorship with the public joint stock company “Grindex” (2006).
- Sergejs Isajevs**, student of 2nd level professional Health Care studies, Faculty of Medicine, University of Latvia (supervisor I. Taivans), in sponsorship with the public joint stock company “Grindex” (2006).
- Gundars Leitīis**, *Mg.*, Faculty of Chemistry, University of Latvia (supervisors *Dr.chem.* A. Jirgenšons, *Dr.chem.* I. Klimentovs), in sponsorship with the public joint stock company “Grindex” (2006).
- Gunita Sudmale**, *Mg.*, doctoral student, Faculty of Biology, University of Latvia (supervisors *Dr.biol.* I. Sominska, *Dr.biol.* J. Jansons), in sponsorship with the public joint stock company “Grindex” (2006).
- Irina Oļeiņikova**, *Dr.sc.ing.*, Institute of Physical Energetics, Latvian Academy of Science, in sponsorship with the public joint stock company “Latvenergo” (2005).
- Armands Kasparāns**, *Mg.*, doctoral student, Rīga Technical University (supervisor *Dr.sc.ing.* J. Rozenkrons), in sponsorship with the public joint stock company “Latvenergo” (2005).
- Kristīne Zihmane-Rītiņa**, *Mg.*, doctoral student, Latvia University of Agriculture (supervisor *Dr.sc.ing.* A. Galiņš), in sponsorship with the public joint stock company “Latvenergo” (2005).
- Irina Jutkeviča**, *Mg.*, doctoral student, Rīga Technical University (supervisor A. Sauhats, corresponding member of the LAS), in sponsorship with the public joint stock company “Latvenergo” (2006).
- Kristina Ļebedeva**, *Mg.*, Institute of Physical Energetics, Latvian Academy of Science (supervisor P. Šipkovs, corresponding member of the LAS), in sponsorship with the public joint stock company “Latvenergo” (2006).
- Armands Staltmanis**, *Mg.*, doctoral student, Rīga Technical University (supervisor *Dr.sc.ing.* J. Rozenkrons), in sponsorship with the public joint stock company “Latvenergo” (2006).
- Sergejs Vostrikovs**, *Mg.*, Rīga Technical University (supervisor *Dr.habil.sc.ing.* D. Turlajs), in sponsorship with the public joint stock company “Latvenergo” (2006).



**Anita Bistere**, *Mg.*, doctoral student of Art Academy of Latvia (supervisor R. Pētersons), in sponsorship with Lattelecom SIA and the Latvian Foundation of Education (2005).

**Tatjana Solovjova**, *Mg.*, doctoral student, Rīga Technical University (supervisor *Dr.habil.sc.ing.* J. Ziemelis), in sponsorship with Lattelecom SIA and the Latvian Foundation of Education (2005).

**Gatis Bažbauers**, *Dr.sc.ing.*, Rīga Technical University, in sponsorship with the public joint stock company “Latvijas Gāze” (2005).

**Kārlis Trušinskis**, researcher, University of Latvia (supervisors V. Rudzīte, full member of the LAS, A. Ērglis), in sponsorship with the public joint stock company “Latvijas Gāze” (2005).

**Anatolijs Borodiņecs**, *Mg.*, doctoral student, Rīga Technical University (supervisor A. Krēsliņš, corresponding member of the LAS), in sponsorship with the public joint stock company “Latvijas Gāze” (2006).

**Uldis Straziņš**, doctoral student, Rīga Stradiņš University (supervisor *Dr.h.c.* R. Lācis), in sponsorship with the public joint stock company “Latvijas Gāze” (2006).

**Māris Ozols**, 4th year student of the Bachelor degree in Computer Sciences, Faculty of Physics and Mathematics, University of Latvia (supervisor A. Cēbers, full member of the LAS), in sponsorship with the joint stock company “RD Electronics” (2006).

**Liene Kanceviča**, *Mg.*, doctoral student, Latvia University of Agriculture (supervisor *Dr.habil.sc.ing.* I. Ziemelis), in sponsorship with the joint stock company “RD Electronics” (2007).

HOLDERS OF GRANTS AWARDED BY THE LATVIAN  
ACADEMY OF SCIENCES, PUBLIC JOINT STOCK COMPANY  
“LATVIJAS GAISA SATIKSME,” AND OF THE KĀRLIS IRBĪTIS  
GRANT OF THE LATVIAN FOUNDATION OF EDUCATION

(Decision of the Expert Commission, 14 June 2005)

**Pjotrs Trifonovs-Bogdanovs**, *Dr.habil.sc.ing.*, Rīga Technical University, Aviation Institute—for the work “Piloting and Navigation Systems of Airships.”

**Boriss Čilkers**, *Dr.sc.ing.*, Transport and Telecommunication Institute—for the work “Set of Instructions and Methodical Publications in the Field of Computer Architecture and Organisation.”

**Natalja Petuhova**, *Mg.*, doctoral student of Transport and Telecommunication Institute (supervisor *Dr.habil.sc.ing.* J. Kopitovs).

**Oļegs Zarjanskis**, *Mg.*, Rīga Technical University, Aviation Institute (supervisor *Dr.habil.sc.ing.* P. Trifonovs-Bogdanovs).

**Remiģijs Bušinskis**, *Mg.*, Rīga Technical University, Aviation Institute (supervisor *Dr.habil.sc.ing.* V. Šestakovs).

**Andrejs Samodelkins**, *Mg.*, Transport and Telecommunication Institute (supervisor *Dr.sc.ing.* M. Zilbermans).

**Aleksandrs Zinovjevs**, *Mg.*, Transport and Telecommunication Institute (supervisor *Dr.sc.ing.* V. Nikoļskis).

**Pāvels Truskovskis**, *Mg.*, Transport and Telecommunication Institute (supervisor *Dr.habil.sc.ing.* J. Krasnitskis).

**Ance Laganovska**, *Bc.*, Ventspils Higher School (supervisor J. Žagars, corresponding member of the LAS).

**Jānis Bitenieks**, *Bc.*, Rīga Technical University, Aviation Institute (supervisor *Dr.habil.sc.ing.* M. Kleinkofs).

**Mārtiņš Sudārs**, *Bc.*, Rīga Technical University, Aviation Institute (supervisor *Dr.habil.sc.ing.* M. Kleinkofs).

**Mihails Beļihins**, *Bc.*, Transport and Telecommunication Institute (supervisor V. Jeremejevs).

**Kirils Gaščenko**, *Bc.*, Transport and Telecommunication Institute (supervisor *Dr.habil.sc.ing.* V. Šelkovnikovs).

Decision of the Expert Commission, 22 September 2006

**Normunds Dreimanis**, *Mg.*, Rīga Technical University, Aviation Institute (supervisor *Dr.habil.sc.ing.* V. Šestakovs).

**Mihails Ivanovs**, *Mg.*, Rīga Technical University, Aviation Institute (supervisor *Dr.habil.sc.ing.* P. Trifonovs-Bogdanovs).

**Ernests Lejnieks**, *Mg.*, Rīga Technical University, Aviation Institute (supervisor *Dr.habil.sc.ing.* M. Banovs).

- Einārs Lepnis**, *Mg.*, Rīga Technical University, Aviation Institute (supervisor *Mg.* I. Smirnovs).
- Jevgēnijs Kornilovs**, *Mg.*, Rīga Technical University, Aviation Institute (supervisor *Mg.* I. Smirnovs).
- Viktors Nerugals**, *Mg.*, Rīga Technical University, Aviation Institute (supervisor *Dr.habil.sc.ing.* P. Trifonovs-Bogdanovs).
- Olga Gračova**, student of the Rīga Technical University, Aviation Institute (supervisor *Dr.habil.sc.ing.* J. Paramonovs).
- Timurs Gaļejevs**, student of the Rīga Technical University, Aviation Institute (supervisor *Dr.habil.sc.ing.* V. Šestakovs).
- Edgars Koks**, student of the Rīga Technical University, Aviation Institute (supervisor *Dr.habil.sc.ing.* V. Pavelko).
- Sergejs Kuzņecovs**, student of the Rīga Technical University, Aviation Institute (supervisor *Dr.habil.sc.ing.* V. Pavelko).
- Andrejs Feščuks**, *Mg.*, Transport and Telecommunication Institute (supervisor *Dr.sc.ing.* O. Džalilovs).
- Mihails Savrasovs**, *Mg.*, Transport and Telecommunication Institute (supervisor *Dr.sc.ing.* I. Jackiva).
- Tatjana Jakovļeva**, *Bc.*, Transport and Telecommunication Institute (supervisor *Dr.sc.ing.* M. Zilbermans).
- Vladimirs Jefimovs**, *Bc.*, Transport and Telecommunication Institute (supervisor *Dr.habil.sc.ing.* J. Krasņitskis).
- Sergejs Kamenčenko**, *Bc.*, Transport and Telecommunication Institute (supervisor *Dr.habil.sc.ing.* V. Jeremejevs).
- Aivars Muravjovs**, *Bc.*, Transport and Telecommunication Institute (supervisor *Dr.habil.sc.ing.* J. Kopitovs).
- Andrejs Ņesterenko**, *Bc.*, Transport and Telecommunication Institute (supervisor *Dr.sc.ing.* M. Zilbermans).
- Sergejs Ņegovs**, *Bc.*, Transport and Telecommunication Institute (supervisor *Dr.sc.ing.* O. Ļusins).
- Aleksejs Tarasovs**, *Bc.*, Transport and Telecommunication Institute (supervisor *Dr.habil.sc.ing.* J. Kopitovs).

HOLDERS OF THE GRANTS AWARDED BY THE LATVIAN  
ACADEMY OF SCIENCES

**2005/2006**

(1.11.2005–31.08.2006)

**Velga Akmene**, Daugavpils University—Konstantīns Počs Grant in physics.

**Kaspars Ērglis**, *Mg.*, University of Latvia—Konstantīns Počs Grant in physics.

**Ritvars Jansons**, *Mg.*, University of Latvia—Jānis Labsvīrs Grant in history of Latvia.

**Edvīns Edvarts**, *Mg.*, University of Latvia—Jānis Labsvīrs Grant in history of Latvia.

**2006/2007**

(1.11.2006–31.08.2007)

**Andrejs Ogurcovs**, Daugavpils University—Konstantīns Počs Grant in physics.

**Elīna Laizāne**, University of Latvia—Konstantīns Počs Grant in physics.

**Gints Putiķis**, University of Latvia—Jānis Labsvīrs Grant in history of Latvia.

**Inese Mieriņa**, Rīga Technical University—Emīlija Gudriniece – Alfrēds Ieviņš Grant in chemistry.

# SCIENTIFIC AND ORGANISATIONAL ACTIVITIES OF THE LATVIAN ACADEMY OF SCIENCES IN 2005 AND 2006

## PRINCIPAL EVENTS IN LATVIA'S SCIENCE AND AT THE LATVIAN ACADEMY OF SCIENCES IN 2005 AND 2006

The activities of the Latvian Academy of Sciences (LAS) are closely linked with all the processes occurring in Latvia's science and in Latvia at large. Latvian Academy of Sciences reviewed information collected from Latvia's scientific institutions and as the most significant results achieved in science in 2005 and 2006 named the following:

### 2005

- Development of new algorithms of quantum computing allowing for a much faster solution of problems too difficult for the traditional computers and requiring larger storage capacity (Corresponding Member of the LAS Andris Ambainis, Full Member of the LAS Rūsiņš Mārtiņš Freivalds, Institute of Mathematics and Computer Science of the University of Latvia in co-operation with the University of Waterloo (Canada ))
- Introduction into medical practice of two earlier developed original immunopreparations—*Rigvir* and *Larifāns*—applicable for cancer immunotherapy and treatment of secondary immunodeficiency (Honorary Member of the LAS Aina Muceniece and *Dr.med.* Guna Feldmane, Augusts Kirhenšteins Institute of Microbiology and Virology of the University of Latvia).
- Elaboration of the scientific research programme of Lettonics (Latvian studies) with the results of the last decade of research brought together in the First Congress of the Latvian Studies held in October 2005 in Daugavpils and Rīga. The Latvian Studies is an interdisciplinary body of humanities, former of the spiritual culture of society exploring Latvian history, language, and culture from the earliest times up to nowadays.

- Development of the non-contact asynchronous double-fed generator for wind power equipment without speed reducer allowing for a substantial increase in the utilisation of wind power (*Dr.habil.sc.ing.* Nikolajs Levins, *Dr.habil.sc.ing.* Vjačeslavs Pugačevs, Corresponding Member of the LAS Leonids Ribickis, Institute of Physical Energetics of the LAS and Rīga Technical University)
- Development of new technologies for production of ecological, healthy products from Japanese quince and large cranberries (*Dr.biol.* Edīte Kaufmane, *Mg.sc.* Dalija Segliņa, Dobeles Horticultural Plant Breeding Experimental Station)
- Elaboration of the holographic inscription method of immersion enabling inscription of holographic grids with a very small (50 nm) period (*Dr.phys.* Jānis Teteris, Institute of Solid State Physics of the University of Latvia)
- Discovery of the link between the polymorphism of interleucine-1 gene and the inflammatory markers in coronary heart disease embodying a significant supplement to the existing knowledge about the causes of this disease and assisting in choosing a proper therapy for patient treatment (Biomedical Research and Study Centre of the University of Latvia, Pauls Stradiņš Clinical Hospital)
- Introduction of the medieval annals “Hermanni de Wartberge Chronicon Livoniae”—a source of written history on the developments of the 14th century in the Baltics—into the body of scientific sources (translated from Latin and with a foreword and commentary written by academician Ēvalds Mugurēvičs. Endowed with the 2005 Award of the Baltic Assembly)
- Accomplishment of the first investigation and review of the history and influence of the Latvian and German (incl. Baltic German) literature in Latvia, “German literature and Latvia. 1890–1945” (in Latvian) (compiler and scientific editor Full Member of the Latvian Academy of Sciences Benedikts Kalnačs, group of authors: Benedikts Kalnačs, *Dr.philol.* Inguna Daukšte-Silasproģe, *Dr.philol.* Māra Grudule, *Dr.philol.* Zanda Gūtmane, Jana Vērđiņa, Institute of Literature, Folklore and Art of the University of Latvia)
- Scientific review of the introduction and cultural history of the decorative shrubs rhododendrons as well as descriptions of the varieties of open-air rhododendrons bred in Latvia (Full Member of the LAS Rihards Kondratovičs)

## 2006

- Introduction of a new technology into haematology patient care that will remarkably improve the possibilities of treating the patients with acute and chronic leucosis. The new technology involves allogeneic peripheral blood stem cell transplantation (*Dr.med.* Sandra Lejniece, *Dr.med.* Viesturs Boka, Ilze Puga, Rīga Stradiņš University, Rīga Austrumu Hospital, clinic “Linezers”)
- Development of new optical methods for the diagnosis of skin and blood vessel disorders (*Dr.habil.phys.* Jānis Spīgulis, Institute of Atomic Physics and Spectroscopy, University of Latvia, in collaboration with the Faculty of Biology and Institute of Cardiology, University of Latvia)
- Cloning of the genomes of plant viruses and its further applications in biotechnology—in creation of vaccines and diagnostics (*Dr.biol.* Andris Zeltiņš, Latvian Biomedical Research and Study Centre)
- Determination of new spatial structures of large-molecular-weight proteins, using the method of multi-dimensional nuclear magnetic resonance spectroscopy, which allows to better understand the mechanism of protein biological activity (Full Member of the LAS Edvards Liepiņš, Latvian Institute of Organics Synthesis)
- Creation of effective luminescent detector materials of a new type that are used for the measurement of the oxygen quantity (*Dr.habil.phys.* Larisa Grigorjeva, *Dr.habil.phys.* Donāts Millers, *Mag.phys.* Krišjānis Šmits, Institute of Solid State Physics, University of Latvia in collaboration with the Institute of High Pressure Physics of the Polish Academy of Sciences)
- Elaboration of a new, more capacious optical storage device, consisting of several layers of thin wolframates (Corresponding Member of the LAS Aleksejs Kuzmins, *Dr.phys.* Roberts Kalendarevs, Institute of Solid State Physics of the University of Latvia)
- Elaboration of a new technology for soil agrochemical investigation using the Global Positioning System (GPS). By applying the GPS technology the first digital agrochemical map of soils in Latvia (Bauska District Code civil parish) was prepared and published (*Dr.agr.* Regīna Timbare, Skaidrite Poriete, Aija Miķelsone, Agrochemical Research Centre)

- Accomplishment and publication of a study in regional economics: a case study of the economics and analysis of increasing economic competitiveness of the Latgale region (*Dr.phil., Dr. sc.soc.* Viktors Voronovs, Irīna Petrova, Edgars Račko, Daugavpils University)
- Summary and monographic publication on the affluent materials, which characterise the spiritual and material culture of the Livs and have been gathered during archaeological excavations in the populous area and burial grounds of the 10–13th centuries in the lower reaches of the River Daugava—Country School of Salaspils (under the leadership of *Dr.habil.hist.* Anna Zariņa, Institute of History of Latvia, University of Latvia)
- Accomplishment of a significant study in cultural history, *Anthology of Latvian Choral Music in 12 volumes: Unaccompanied Music for Mixed, Male and Female Choirs a appellate*. For the first time in music history, the “golden collection” of Latvian choral songs, starting from the 1<sup>st</sup> All Latvian Song Festival (1873) up to the works of contemporary artists, has been systematized and complemented with scientific comments (Honorary Member of the LAS Imants Kokars, *Dr.art.* Arnolds Klotiņš, Arvids Bomiks, *Dr.art.* Oļģerts Grāvītis, Jānis Lindenbergs, Pēteris Plakidis). The 12 volumes have been illustrated by performance of the chamber choir *Ave Sol* in 12 CD’s (conducted by Uldis Kokars)

Latvian publishers have supplemented the book stock with *several significant scientific editions*:

- Auzins, M., Ferbers, R. *Optical Polarization of Molecules*. Cambridge: Cambridge University Press, 2005, 306 pp. (2<sup>nd</sup> edition)
- *Databases and Information Systems*. Ed. J. Bārzdīņš, A. Caplinska. Amsterdam: IOS Press, 2005
- *Vartberges Hermaņa Livonijas hronika* [Hermanni de Wartberge Chronicon Livoniae]. Translated from Latin and with foreword and commentary written by academician Ēvalds Mūgurēvičs. Rīga: Publishers of the Institute of the Latvian Language, 2005, 334 pp.
- Bilinskis, I. *Digital Alias-free Signal Processing*. WILEY, April 2007, 488 pp.



- *Bioprocess Engineering*. Ed. Uldis E. Viesturs, Stoyan M. Tzonkov. Sofia: Avangard Prima, 2006, 253 pp.
- Mauriņš, A., Zvirgzds, A. *Dendroloģija* [Dendrology]. Rīga: Academical Publishers of the University of Latvia, 2006, 448 pp.
- *Ideju vēsture Latvijā. Jaunā strāva – 20. gs. Sākums. Antoloģija* [History of Ideas in Latvia. New Stream—beginning of the 20<sup>th</sup> century. Anthology]. Compiler and scient. ed. *Dr. phil.* Ella Buceniece. Rīga: RaKa. Part 1, 2005, 532 lpp.; Part 2, 2006, 349 pp.
- *Teoloģija: Teorija un prakse. Mūsdienu latviešu teologu raksti, I* [Theology: Theory and practice. Articles by modern Latvian theologians, I]. Rīga: Zvaigzne ABC, 2006, 400 pp.

Several *high prestige international conferences* were held in Latvia.

These included:

- The 6th International Scientific Conference on Magnetohydrodynamics (Jūrmala, 27.06–1.07.2005)
- The 6th Conference of the Baltic Studies in Europe (Valmiera, 17–19.06.2005)
- The Paul Walden 4th Symposium on Organic Chemistry (Rīga, 15–16.09.2005)
- The 1<sup>st</sup> Congress of Lettonics (Latvian studies) (Daugavpils, 21.10.2005; Rīga, 24–25.10.2005)
- The 2nd Latvian Conference “Functional Materials and Nanotechnologies” (Rīga, 27–28.03.2006)
- The 14<sup>th</sup> International Conference on Mechanics of Composite Materials (Rīga, 29.05.–2.06.2006)
- Conference “Innovations for the Future Medicine of Latvia” (Rīga, 4.10.2006)
- Uncertain transformations—new domestic and international challenges (Rīga, 9–12.11.2006)

*Other significant events in science and schools of higher learning***2005**

- 2005 was the year of intensive organizational works. The Education, Culture and Science Committee of Saeima together with the scientists (full members of the LAS J. Ekmanis, E. Grēns, J. Jansons, I. Lācis, I. Muižnieks, and others) were working on the draft Law on Scientific Activity, the plan of the state budget for science in 2006, and other issues important for Latvian science.
- On April 14, the Saeima unanimously accepted the new Law on Science Activity. It is valid from May 19.
- According to the new Law on Science Activity the state budget for science in 2006 has been increased by 13 million LVL—i.e., the annual increase defined by law—0.15% of the gross domestic product (GDP). The law anticipates basic funding received by scientific institutions and the higher education establishment. In accordance with the decision of the Saeima in 2004, the Latvian science received additional 5 million LVL to increase the competitiveness in science, already in 2005.
- Scientific conference “Latvian Science in Development” was held in the Academy of Sciences on May 27. Following the report of the Full Member of the LAS E. Grēns, conference discussed the draft Strategy for Latvia’s Science, Technical Development, and Innovations. Several young scientists and regional representatives of science (T. Tisenkopfs, M. Dambrova, A. Andrušaitis, A. Barševskis, A. Zemītis, P. Trapencieris, and others) participated in the discussion. At the meeting of the Presidium of the LAS on May 30, J. Ekmanis, President of the LAS, noted that the conference was well attended (approx. 300 participants). Target of the conference—conversation about future—was largely realized.
- The year 2005 was announced as the Year of Physics—the year of Alberts Einšteins, commemorating the 100<sup>th</sup> anniversary of his first discovery and the 50<sup>th</sup> anniversary since he passed away. Several events and a conference dedicated to the Year of Physics were held in Latvia in 2005. On January 11, the Senate started work with hearing the reports of three scientists—Mārcis Auziņš, Elmārs Blūms, and Linards Skuja—on the results of their research during 2004.

- The attention of the Government towards science grew intensively in 2005. On February 10, Aigars Kalvītis, Prime Minister of the Republic of Latvia, visited the Latvian Academy of Sciences. He had an hour-and-a-half hours long conversation with Juris Ekmanis, President of the LAS, and other scientists.

## 2006

- The year 2006 for Latvia's science was the year when the new *Law on Scientific Activity*, adopted in 2005, started its full operation and the Cabinet of Ministers adopted several new regulations, rules and directions in accordance with the given law, including: Regulation on the Latvian Council of Science (May 9), Order for evaluation and funding of the projects of fundamental and applied research (April 25), on priority fields of science for funding of the fundamental and applied research in 2006–2009 (June 6), Criteria for evaluation of work efficiency in scientific institutions (June 20), Order for application, expertise and funding of state research programmes (June 21), Order for distribution of funding of market-oriented research projects (July 11).
- The year 2006 for Latvia's science was the year when according to the *Law on Scientific Activity* funding from the state budget grew by 0.15% of the GDP. Funding of science for the higher education establishments and state programmes increased, realization of the basic funding was partly initiated. In 2006, Latvia's science received 75 million Euro totally from different sources. In 2007, the funding of Latvian science will grow for approx. 75 million Euro from the EU structural funds. Funding from the state budget will increase by 0.15% of GDP in 2007 and will be directed towards complete coverage of state programmes and for the realisation of the basic funding. Until now, funding of the fundamental and applied research projects (grants) has not practically changed.
- Due to the state policy supporting science programmes, the attention of the society towards science is returning, including Latvian showings amidst other European states, continued to grow in 2006. Until now, the showings are relatively bad but it is because they were calculated based on statistical data of unfavourable for Latvia years 2003–2004. In 2006, several essential

statistical data have improved, e.g., the number of applications for European and the USA patents from Latvia has grown.

- Attention of the Government towards science continued to grow in 2006. Aigars Kalvītis, Prime Minister of the Republic of Latvia visited several scientific centres of Latvia including the Institute of Organic Synthesis, Latvian Biomechanical Research and Study Centre, Institute of Solid State Physics of the University of Latvia, Laser Centre of the University of Latvia, and the Innovation Centre of the University of Latvia.
- On January 13, the scientific conference “Pacifistic Resistance. Experience of Latvia” dedicated to the 15th Memorial Day of the barricades was held in the conference hall of the War Museum presenting the selection of reports and compiled documents. The introductory words were read by Ingrida Ūdre, Chair of the Saeima, Juris Ekmanis, President of the LAS, Renārs Zaļais, Aija Fleija, Tālav Jundzis.
- On February 14, at the meeting of the Senate dedicated to the 60<sup>th</sup> anniversary of the LAS, Juris Ekmanis, President of the LAS, characterized the present situation of science in Latvia and the place of the LAS in it, but academician Jānis Stradiņš lectured about the history, contradictions and achievements of the Academy of Sciences.

ACADEMIC LECTURES DELIVERED BY DISTINGUISHED  
SCIENTISTS**Thermophysics of magnetic fluids***Elmārs Blūms*

Abstract of the academic lecture given at the General Meeting of the LAS  
on 25 November 2005

Magnetic fluids are new materials with unique physical features and vast possibilities of practical application. They are ferro- or ferrimagnetic colloidal dispersions in diverse carrier liquids. Nano colloids have superparamagnetic properties. Magnetizing is possible only in a strong external field, i.e. natural paramagnetic fluids or gas. The only difference is that magnetic moments of the colloidal nano particles are thousands of times larger than of the paramagnetic molecules or ions. Therefore, magnetizing of colloidal saturation is possible even in rather weak fields. For paramagnetics it can be achieved at very low temperatures.

On a macroscopic scale, ferrocolloids are like fluids used in daily life. But when placing them into the magnetic field we can observe different quite unexpected phenomena, e.g., it can cause instability of liquid surface even in weaker fields. The explanation of these phenomena is to a great extent an achievement of the specialists of the Institute of Physics of the University of Latvia (A. Gailītis, M. Majorovs). Another example: even in isothermal media it is possible to cause intense magnetic convection around the object placed in magnetic fluid. This phenomenon—impossible from the point of view of energetics—was prognosticated and experimentally proved in the Institute of Physics (J. Čuhrovš, A. Rimša).

Magnetic fluids have vast practical applications. Initially they were used in specific devices, e.g., for hermetizing needs in space and in vacuum technology. Presently, one of the most popular applications is hermetization of the PC Winchester-type memory discs. Another quite a wide-spread application of ferrofluids is connected with audio devices. Magnetic fluids essentially intensify loudspeaker cooling, improve the acoustic quality, and make centring of the acoustic coil in a loudspeaker split easier. As the third example one can mention the application of ferrocolloids and nano particles in biology and medicine.

In the 1970s, when a line of talented young people (A. Cēbers, M. Majorovs, J. Pļaviņš, A. Čuhrovš) started their post-gradual studies in the Lab of Thermophysics, ferrocolloidal research was essentially enlarged. At the end of the 1970s and in the beginning of the 1980s, significant results were achieved in the investigation of instabilities of ferrofluidal surfaces, colloidal inner structure, convections caused by

thermomagnetic and magnetic diffusions. Research work in magnetic separation of blood cells and a line of conceptual experiments in magnetic transportation of medicine (J. Plaviņš, L. Markēviča) were made. This period coincide with the most intensive research period of magnetic fluids throughout the world.

We have initiated the first international symposium of hydrodynamics and thermophysics of magnetic fluids. Following the recommendations of the International Committee of Magnetic Fluids, the 5<sup>th</sup> International Conference of Magnetic Fluids was held in Rīga in 1989. These conferences are organized every third year in different states of the world. Countries representing the Soviet block were not invited until the conference in Japan in 1986. This tradition was broken at the conference arranged by the Institute of Physics. For the first time, complete representation of the world ferrofluid scientists was achieved.

In the 1990s, with our active participation, a large international scientific project was carried out. Supported by UNESCO, a thematically all-embracing guide-book *Magnetic Fluids* was prepared. Scientists of the world leading scientific centres were included in the editorial board, also from the Institute of Physics (E. Blūms). Twenty-eight authors were preparing the manuscript, among them A. Cēbers and E. Blūms from Latvia.

This lecture shortly describes the scientific research of the latest years. In the course of time, productive international co-operation has been achieved paying attention to the idea of thermomagnetic phoresis initiated in our Institute at the end of the 1990s. Experimental research is carried out using two principally different methods (A. Mežulis). Separation of colloids in thermal diffusion column is investigated together with the University of Bremen. Additional information is obtained from the optically stimulated structural dynamics of thin layers. In this research the Institute co-operates with the University of Pierre and Marie Currie in Paris. The results of several years long research work have given many-sided information about the magnetic Soret effect and its anisotropy in spherically and electrostatically stabilized ferroc colloids. In recent years, the Institute of Physics is paying great attention to studies of diffusice and convictive transfer of colloidal particles in capillary-porous media.

## **Livonian chronicles and archaeological data about the Baltic nations in the period of the 12<sup>th</sup>–14<sup>th</sup> centuries**

*Ēvalds Mugurēvičs*

Abstract of the academic lecture given at the General Meeting of the LAS  
on 6 April 2006

There are three most significant chronicles, sources of narrative history, revealing important information about the political events on the eastern coast of the Baltic Sea at the beginning of Middle Ages: “Indriķa hronika” (*Heinrici Cronicon Livoniae*, Chronicle of Henry of Livonia), “Vecā atskaņu hronika” (Old Livonian Rhymed Chronicle) and “Vartberges Hermaņa hronika” (*Hermannii de Wartberge Chronicon Livoniae*) chronicles. The authors of the chronicles were foreigners, active defenders of dissemination of Christian belief, supporting armed fights against unbelievers. As the Christian mentality was unacceptable to the local pagans, crusades and the freedom fights started in the Baltic countries.

The Chronicle of Henry of Livonia is the most complete historical source telling about the events in the Baltic at the end of the 12<sup>th</sup> century and in the first decades of the 13<sup>th</sup> century. This chronicle, written in Latin, is distinguished for its rich contents. It shows the subjection of the Liv people, Western Latgallians, Selonians, and Estonians. The author has been watching this process and describing it in the chronicle living in a civil parish in Northern Vidzeme. The depiction of population of certain nations helps to determine ethnic and cultural affiliation, and the location of settlements is stated based on archaeological research of the castle mounds and villages.

The Rhymed Chronicle, the oldest poetic work about the activities of the German Order written in the Middle Upper German language, shows the subjection of the Kur and Semigallian people in the second half of the 13<sup>th</sup> century and the fights of the Order with ill-disposed neighbours during the period of foundation of the Livonian states.

Hermannii de Wartberge Chronicon Livoniae is an important source of history about the events in the Baltic in the 14<sup>th</sup> century, and especially the 3<sup>rd</sup> quarter of the 14<sup>th</sup> century when the author of the chronicle was in Livonia, and the information he has left about this period in many cases is the only existing one. There has remained one copy of the chronicle. Now it has been translated into Latvian for the first time and published together with the parallel text in Latin. Hundreds of settlements in Livonia and in the State of Lithuania are mentioned in the chronicle, characterized in the commentary based on archaeological research with maps of location attached. The contents of the above-mentioned Livonian chronicles, today available for usage in Latvian translations together with vast commentary and maps, give clear view of the

course of dissemination of Christian belief and enclosure of the Baltic region in the area of Western European culture in the period of the 12<sup>th</sup>–14<sup>th</sup> centuries.

Sources:

*Indriķa hronika – Heinrici Chronicon*. Translated by Ā. Feldhūns, preface and commentary by Ē. Mugurēvičs. Rīga: Zinātne, 1993.

*Atskaņu hronika – Livländische Reinchronik*. Reproduction from Middle Upper German by V. Bisenieks, preface by Ē. Mugurēvičs, commentary by Ē. Mugurēvičs, K. Kļaviņš. Rīga: Zinātne, 1998.

*Vartberges Hermaņa Livonijas hronika – Hermanns de Wartberge Chronicon Livoniae*. Translated from Latvian, preface and commentary written by Ē. Mugurēvičs. Rīga: Latvijas vēstures institūta apgāds, 2005.

## **Introduction and breeding of rhododendrons in Latvia**

*Rihards Kondratovičs*

Abstract of the academic lecture given at the General Meeting of the LAS  
on 7 December 2006

Rhododendrons (in Greek *rhodon*, rose, and *dendron*, tree) are plants of Ericaceae family—bushes, not so often trees, with evergreen, partly evergreen, or summergreen leaves. They are among the most beautiful decorative bushes planted in public and individual greeneries. Given the optimum growth conditions they show outstanding decorativeness.

Rhododendron genus is very vast and many-sided. There are species that are only a few centimetres above the ground and form thick coverage whereas others are growing as dwarf bushes, bushes or even smaller trees reaching up to 30 m of height. There are species with leaves of 5 to 10 cm in size but some reach 60 cm or even more. Rhododendrons have huge variety of size, form, and colour of blossom.

Rhododendrons grow wild mainly in cold and temperate climate of the Northern hemisphere in mountains and around great water basins—oceans, seas, big lakes and rivers. Rhododendrons are not growing wild in South America and Africa.

Rhododendron genus is the biggest in the Ericaceae family. There are 1200 up to 1300 species with outstanding decorative and utilization features growing wild. In decorative gardening there are only approximately 250 species used. It means that the practical feasibility is far from being exhausted.

In comparison with other decorative plants, rhododendron is a new culture. The first of the species, cultivated in 1656, is the bristle hairy-leaf wild-growing Alpine



rhododendron. Mass introduction of wild-growing rhododendrons began in England in the 2<sup>nd</sup> part of the 18<sup>th</sup> century. From there they spread further along the whole Europe. In 1763, the evergreen *Rhododendron Ponticum* was brought from Spain and introduced in England. In 1792, the Yellow Rhododendron was brought from the Caucasus. In 1809, the Catawba Rhododendron from North America was introduced. In 1811, the Red Blossom tree rhododendron was brought from the Himalayas. The introduction of the wild-growing rhododendrons was continued in the 19<sup>th</sup> century and was practically accomplished by the beginning of the 21<sup>st</sup> century.

The first attempts to implement rhododendrons in Latvia were made in the 1820s when Wagner Gardening Company offered two species, Catawba and the Yellow. In later years, rhododendrons were offered by I. Cigra, C. Schoh, and other companies. The founder of the Skrīveri Nature Park Sivers planted eight species in his park. In the turn of the centuries, there were seven species growing in the parks of Rīga. Unfortunately, these growings have not survived either in Skrīveri or in Rīga.

The next period of introduction of rhododendrons in Latvia was the 1920s and 1930s. In the 1920s, quite many rhododendrons were planted in Jūrmala near the cottages (but only a few species). In the 1930s, small collections were introduced in the Bulduri School of Horticulture and in the Botanical Gardens of the University of Latvia. The majority of the introduced rhododendrons perished during the cold winters of 1939/40 and 1940/41.

Interest in rhododendrons as local decorative plants grew at the beginning of the 1950s. In 1952, the head of the Dubulti Gardener's J. Andersons started mass reproduction of three species (Catawba, Japanese, and the Yellow) from seeds reproduced locally for Rīga greeneries. In 1958, the first hundred rhododendrons were planted in the park but in the following years a few thousands were added. In the first years, they were blooming splendidly but due to incorrect agrotechnics and unskilful tending they perished a few years later.

Intensive introduction of rhododendrons in Latvia began in 1957 when the question about the introduction and acclimatization of rhododendrons was included in the list of scientific research works of the Botanical Gardens. During the first seven years—till 1964—adaptability to climatic peculiarities of Latvia for two hundred wild-grown species was examined. One hundred of them proved to be suitable. In the 1960s and at the beginning of the 1970s, the collection of delicate species selected in Western Europe was intensively developed with the aim to be further used in the selection of new species.

In the period between 1957 and 2006, there were 614 different combinations of hybridization performed, several tens of thousands hybrids were obtained and several hundreds of the most adaptable were selected.

Since 1999, 49 new outdoor species have been approved and included in the Latvian State Register of Protected Plant Species, including 29 summergreen and 20 evergreen species of rhododendrons. Thirty-six of them are registered in the International Register of Rhododendron Species of the Royal Horticultural Society of England.

The work with rhododendrons is being continued for almost half a century. The most essential achievements are the following:

- Latvian flora has been supplemented with a new valuable cultivated plant—rhododendron;
- cultivation agrotechnics has been worked out;
- multiplication methods have been worked out;
- physiological and biochemical processes of the ecological adaptation period have been clarified;
- thanks to books, booklets, and articles published in different editions, exhibitions, radio and TV programmes, rhododendrons are now well-known by professional gardeners, amateurs, and other persons feeling close to nature.

**The Courland (Kurzeme) Society for Literature  
and Art (1815–1939)—the First Point of Reference  
for the Later Latvian Academy of Sciences**

*Jānis Stradiņš*

Reported at the LAS Autumn General Meeting,  
24 November 2005

The numerals representing six definite years are embroidered on the standard of the Latvian Academy of Sciences, years which mark important moments in the history of the Academy and characterise a certain succession: 1815, 1869, 1932, 1936, 1946, and 1992. The first one is 1815, the year in which the Courland (Kurzeme) Society for Literature and Art (Kurländische Gesellschaft für Literatur und Kunst; Курляндское Общество любителей словесности и художеств) was founded. Year 2005 is its 190th anniversary, the last “round” date before the 200-year jubilee. Therefore, it is worth dwelling upon this date and the legacy of the Courland Society.

I would like to address the following topics:

- What was the Courland Society for Literature and Art, can it be defined as an academy of sciences, by virtue of its structure, functions, and forms of activity?
- If we admit that it can be defined as such, has it anything to do with the present Latvian Academy of Sciences? Is there a settled succession, considering that most

members of the Society were Baltic Germans (and during the period of the national revival including no Latvians at all!), and its seat was in Mitau (now Jelgava, in Latvia), not Rīga?

- Has the historic capital of science in Latvia been Rīga, Dorpat (now Tartu, in Estonia) or possibly Mitau?

- Did the range of the Courland Society activities cover the *whole* of Latvia, and did it deal with problems of significance to Latvia and Latvians only?

- And, lastly, did the Society stand merely as an institution for the arts (being called a society for literature and art, not a society for science), or was it also a science-oriented organisation, a place for exploring issues of the natural sciences, and what was its real contribution to science, even to world science?

The Courland Society for Literature and Art was born in 1815. It was a construct of the enlightenment, which emerged soon after the French Revolution and the Napoleonic Wars at the time when, in the climate of the liberal reforms of Czar Alexander I, serfdom was abolished in the three Baltic “German” provinces: in 1817 in Kurzeme (Courland) province, in 1819 in Vidzeme (Livland) province and even earlier in the province of Estonia (Estland).

The founders of the society, on 23 November 1815, were eight well-known public figures of Mitau (in Courland)—six liberal members of nobility and functionaries of the province (including Ulrich von Schlippenbach, Alexander Medem, Georg von Fölkersahm), the history professor of the Mitau *Gymnasium Illustre* and freemason Karl Wilhelm Cruse (1765–1834), and the well-known historian, former archivist of the last duke of Courland and founder of the Mitau museum, Johann Friedrich von Recke (1764–1846). Their aim was to form a local forum for exchange of views on topical scientific and social problems, to build a bridge between East and West (between Russia and Germany), and to create an intellectual link among the three Baltic provinces, first of all for the native German-speaking *Literaten*, though not forgetting the inhabitants of Latvian descent, who were to be soon released from the yoke of serfdom. An outline of the future prospects for the free Latvians and Estonians was discussed.

Courland was incorporated as a province in the Russian Empire comparatively late (1795), considerably later than Livland, and intellectually it was much closer to the West and to Germany, especially the Kingdom of Prussia. Memories of the Duchy of Courland and its cultural and educational centre, the *Academia Petrina*, which had functioned here since 1775, and its years of glory were still alive and bright. Formally, the University of Mitau was in existence for 109 days at the beginning of the year 1801, and only after the assassination of Czar Paul I and coronation of Alexander I, the University for the Baltic provinces was transferred to Dorpat. The representatives of Courland were offended by the fact that the University had been founded in Dorpat,

not in Mitau, and they presumed to have compensated for this by founding the new Society.

After Governor General Philip Paulucci had validated the Statute of the Society in 1816, the founders held the first constituent session and elected 127 more members representing all three provinces, other towns of the Russian Empire, and foreign countries, regarding the Society as a sort of a complement of Dorpat University. The new Society was created after the example of the scientific societies of the German and Italian ministates, which operated under the protectorate of a ruler or high-standing person (in his opening speech, Carl Wilhelm Cruse made mention of even the Royal Society of London). On that score, election of the last duchess of Courland Dorothea Biron to the status of the first honorary member of the Courland Society for Literature and Art was significant; 1000 silver thalers were donated by her for the Society on condition that it had to be located in Courland—this means that there had been a possibility of its transfer to Dorpat or Rīga.

The Society tried to attract as wide a circle of prominent persons as possible by electing as its members people of a broad range of intellectual interests, such as scientists, artists and writers, as well as pastors and public servants from all of the Baltic provinces—Rīga, Dorpat, and Estonia included.

In a scientific sense, the first decade was most creative and productive one of the Society's existence during the reign of Alexander I, but no longer during that of Nicholas I. Although the Society kept on functioning up until the repatriation of the Baltic Germans in 1939 and experiencing both ups and downs, in later years it gradually turned its attention to local history studies, as well as to studies of historic and artistic assets of Courland, and became the main support for the formation of the Courland Province Museum (founded by Johann Friedrich von Recke in 1818). In essence, the Society became a group of friends and trustees of the Museum. Socially challenging and large-scale scientific projects were associated mainly with the initial period of the Society.

The primarily scientific disposition of the Society is precisely (although linguistically clumsily) emphasised by its Latvian title stated in the first Latvian newspaper *Latviešu Avīzes* [The Latvian Newspaper], 10 July, 1824, “Tā Kurzemes biedrība uz vairošanu visu augstu zināšanu” [The Courland Society for Aggrandizement of all the High Knowledge]. It is also emphatically characterised in the description by the German geographer and traveller Johann Georg Kohl after his visit to Mitau (1841),

It is true that the light of this Society does not shine too far above the borders of Courland. . . . It is a pleasing little Academy [of Sciences] en miniature, and its meetings, which at times are open for the educated ladies of the town, are widely attended by those listening with interest to news about history, geography or natural sciences, on descent of Latvians. . . . or on any other subject. . . .

By 1915, 1124 people, including such world-famous figures in science as Karl Friedrich Gauss (mathematician), Nikolai Karamzin (historian), Karl Ernst von Baer (biologist), Wilhelm Struve (astronomer), Theodor Grotthuss (chemist), Adam Johann von Krusenstern (world traveller), Yegor Engelhardt (founder of the Czarskoje Selo Lyceum, Pushkin's educator), Jacob Grimm (linguist), Georg Schweinfurt (explorer of Africa), Ferdinand Johann Wiedemann (linguist), Carl Schirren (historian), Ludwig Resa (theology professor at the Königsberg University, researcher of Lithuanian culture), Adalbert Bezzenberger (linguist), Anders Johan Sjögren (academician of St. Petersburg), Heinrich Rose (chemist, discoverer of niobium) a.o., were elected members or honorary members of the Society.

Among the members of the Society, such Baltic scientists and workers in the arts as David Hieronymus Grindel, Garlieb Merkel, Johann Christoph Brotze, August Wilhelm Hupel, Karl Gottlob Sonntag, Otto Huhn, Karl Christian Schieman, Karl Friedrich Watson, August Bielenstein, Konstantin Grewink, Gustav Bergmann, Isidor Brennsohn should be mentioned.

The dowager duchess Dorothea, Marquis Philip Paulucci, Grand Duke Karl Friedrich of Saxe-Weimar-Eisenach and President of the St. Petersburg Academy of Sciences Sergei Uvarov were among the honorary members of the Society.

Certainly, only a small group—a few dozens of people—played an active part, the others of those elected contributed to the reputation and image of the Society.

The main aims of the Society, as defined in the initial Statute, were:

- (1) to create a place for association for those wishing to become acquainted with the progress of literature and arts as well as to become involved in it;
- (2) for the local friends of literature and art—to facilitate their familiarisation with foreign experience in these fields, and, for the foreigners, to help to learn what has been done in the Russian Empire;
- (3) to acquaint people with inventions and discoveries, useful in the everyday life, and to resist harmful preconceptions.

Soon afterwards (28 March 1817) the first supplemented version of the Statute (*Erste Beilage zu den Statuten*), which provided a much wider interpretation of the functions of the Society, was endorsed:

“Its aim in the fields of (1) history and literature, (2) pure science, and (3) schooling of the people is to create a place of mental base and cohesion, a closer scientific link, and a possibility of cooperation among the Baltic German provinces of Russia. (*Die deutsche Ostseeprovinzen Russlands*—at that time, this was the title of provinces of Courland, Livland, and Estland.)

First, the **scientific literary aim** of the Society is to make use of the advantageous geographical position of Courland, in order to unite, by means of correspondence with

its members, the activities in the field of science and arts, and create a position for interchange of knowledge, in the various provinces of Russia, especially the Baltic German provinces, and abroad. . . . It . . . assumes all care in order to supply information not only on the cultural situation of the German inhabitants of the Baltic provinces, but also on the Latvian and Estonian peoples, their language, poetry, religion . . . .

Second, **purely scientific plane**, the Society will endeavour not only to collect the diffused works of science and art of its members in the Baltic provinces as well as to join their forces for a common goal, and amplification of activeness and impetuosity of the motherland's scientists; it also desires to attract a wide circle of those interested, to broaden understanding and impetuosity in the learned spheres, to spread and popularise important results of science, relevant for the social life."

Thus, "the first supplemented version of the Statutes" gave a very general interpretation of the term "literature and art," assigning to it also science, natural sciences included. The author of the supplemented version was Magnus Georg Paucker (1787–1855), *illustre Mitau Gymnasium* professor of mathematics, secretary of the Society.

It was also planned for the Society to issue annals (*Jahresverhandlungen*).

"Although any part of human knowledge can be chosen as a theme for the annals, some of them need to be emphasised: all fields of the natural sciences, studies about countries and nations from ancient to recent times, disquisitions on trade, sailing, shipping, warfare as well as technology, agriculture and statistics, state and cultural history, linguistics, poetry and the arts generally, music, painting, sculpture, architecture, and so on."

The meetings of the Society were called on the first Wednesday of each month, and there the forthcoming scientific disquisitions were discussed well in advance of their issuance. These meetings also included deliveries of challenging reports, exchanges of ideas, discussions on the latest scientific achievements, demonstrations of experiments in natural sciences and reports on both domestic and overseas correspondence. In June, when the number of visitors from Livland and Estonia was significant, the meetings had a wider range of themes to cover, moreover, the annual meetings of the Society (15–16 June), which included the yearly reports and elections of new members had to be held.

Initially, the meetings took place on the premises of the Mitau Gymnasium, but, after 1820, at the house of the well-known book publisher Johann Friedrich Staffenhagen, where the Courland Province Museum was being formed.

It should be noted that at the time Rīga was at least as considerable a centre for science and culture as Mitau, but a dynamic and impetuous development of the University in Dorpat, founded (reestablished) in 1802, lead it to become the main centre

of science and higher education for the three Baltic provinces. On the other hand, nearly all the notable scientific professional societies of the region were founded in Rīga, such as the Rīga Chemical and Pharmaceutical Society (founded in 1803), Rīga Society of General Practitioners (1822), and Society for the Study of History and Antiquities of the Baltic Provinces (1834). Initially, the Livland Practical Economic Society (founded 1795, in Dorpat since 1812) functioned here, and also the Literary Applied Citizens' Society (1803) was among the active organisations.

However, all these societies were either of practical or highly specialised orientation and none of them had the right to lay claim to the status of a society, equal to an academy of sciences. Only in Mitau a group of intellectuals emerged, daring enough to propose such an idea, and, remarkably, willing to integrate not only the Courland cultural workers and scientists but also those from the other Baltic provinces in the common work and for the presentation of their findings. In the course of time, Mitau proved itself to be powerless in the competition against Riga and Dorpat; it did not succeed in becoming the leading cultural and scientific centre of the region. But the unique initiative of the inhabitants of Mitau during this particular period of time should not be forgotten; like *Academia Petrina* in Mitau, which never shaped into a real university, the Courland Society remained an unfulfilled hope although with a distant echo in the future. The above-mentioned facts indicate that the work of the Society, at least initially, was comparable to that of an academy of sciences.

At the meetings of the Society, also a variety of papers on technical, mathematic and natural sciences matters were delivered and discussed, for instance, on the spas of Baldone and Bārbele (1819, Heinrich Bidder, Karl Christian Schiemann), on agricultural pests (1820), on the latitude of the Sloka hamlet (1818, Magnus Georg Paucker), on the latest fire fighting equipment (1820), on the geography of Courland, on the chemical content and characteristics of the first meteorite in Latvia—the Liksna meteorite (1820, Theodor Grotthuss). At the meeting held in February 1820, a letter of the great German mathematician and honorary member of the Society Karl Friedrich Gauss, was directed to Paucker regarding the calculations carried out by the latter on the construction of a 257-side polygon in a circle. In the letter, Gauss informed also on the development of his prime number theory.

As to matters of astronomy, mechanics, and mathematics, in the first volume of the articles of the Courland Society (1819), we find not only articles by Paucker himself, but also measurements for the determination of the geographical coordinates of different points in Latvia by Riga Cathedral School Professor Johann David Sand. The second volume contains an article by doctor Karl Christian Schiemann from Courland on the analysis of the sulphuric springs of Baldone and Bārbele, and one by the young doctor Eduard Eichwald (1795–1876) from Skrunda, later a famous zoologist and corresponding member of the St. Petersburg Academy of Sciences, on palaeontology, or,

as he termed it, systematic orictozoology (delivered at the meeting of 8 March 1821). This work of Eichwald still attracts the attention of historians of biology by its scope and ideas of evolutionism, which oppose the catastrophe conception of Georges Cuvier. At the meetings of the Society, the young Eichwald also demonstrated several palaeontologic rarities—fossil amphibians from Guadeloupe (the meeting of 6 August 1820)—and delivered a speech on the distribution borders of flora and fauna (the meeting of 20 June 1821). An article on the development of a hen's egg by Christian Pander, which was considered to be of major importance in the history of embryology by Eichwalds' likeminded fellow and later academician of the St. Petersburg Academy of Sciences, was delivered at the meeting of 6 August 1820.

However, the most remarkable publication, undoubtedly, was the classical treatise "On the Chemical Action of Light and Electricity" by Theodor Grotthuss, which, due to illness of the scientist, was delivered by his friend, Mitau doctor Heinrich Bidder at the 6 November 1818 meeting of the Society.

This 65-page-long treatise, which is considered to be a recital of the basics of the new scientific discipline of photochemistry, opened the first volume of articles of the Courland Society for Literature and Art. This very article has kept the name of the Society in the history of science. Later, in 1906, the article was reprinted in the series Ostwalds Klassiker der exakten Wissenschaften, and an in-depth testimonial of Grotthuss' life and work has been provided in the book by Jānis Stradiņš published in Moscow in 1966 as part of the USSR Academy of Sciences series of scientists' biographies. The name and listings of the main scientific merits of this legendary researcher can be found in many general-purpose encyclopaedias, as well as in books on the history of physics and chemistry.

Theodor Grotthuss (1785–1822), physically weak, in poor health and distant from everyday life, the son of a Courland nobleman, composer and pianist Ewald von Grotthuss, was born during his parents' travel abroad, in Leipzig, and spent most of his life in Gedučai manor (present territory of Lithuania), not far from the town of Bauska and Rundāle civil parish, 56 versts from Mitau. This was the place where he carried out his experiments and penned nearly all of his 70 articles on problems of chemistry, physics, and collateral branches.

In 1805, at the age of 20, Grotthuss explained scientifically the newly discovered phenomena of electrolysis (Grotthuss' distinctive electrolysis theory—the relay mechanism). In 1811, he expounded why mixed gases did not ignite in narrow pipes; in 1814, he gave an explanation on causes of luminescence (phosphorescence); in 1818, he discovered the fundamentals of photochemistry (the chemical action of light), hence giving a theoretical substantiation to the art of photography, which had not yet been invented. In his conception, Grotthuss strove to deliver a unified explanation of all natural phenomena, which would make it possible to perceive processes from grav-



itation and light to chemical processes, warmth, fermentation and life, explaining all these diverse phenomena as manifestations of latent electricity.

Although these surmises did not prove to be true in general, Grotthuss had intuitively grasped the later principles of the kinetic theory of matter, the electromagnetic theory of light, the electrolytic dissociation theory as well as the principles of the theory on acids and bases. A list of potential Nobel Prize laureates of the 19th century has been created and includes Grotthuss, mentioning also the findings he reported at the Courland Society.

The main works of Theodor Grotthuss' were deliberated ten times at the meetings of the Courland Society in Mitau. These include the already-mentioned work on the chemical action of light and electricity. Nevertheless, even the learned men of Mitau could not fully follow the novel thoughts of their colleague: they were more interested in Grotthuss' analyses of local mineral waters and meteorites. Ever since his youth, Grotthuss suffered from an incurable internal disease and his research remained incomprehensible and uninteresting to his relatives. Working in rural solitude, with no up-to-date scientific information, devices, and technicians, Grotthuss at times made mistakes or "discovered" matters already described in science and priority disputes arose. Finally, during a streak of depression on 26 March 1822, Grotthuss, at the age of 37, committed suicide by shooting himself.

Grotthuss named as his heir the Courland Society for Literature and Art, bequeathing to it not only his own library, "physical and chemical devices and preparations," collections in natural sciences and minerals, but also 12,000 silver roubles, which were to be used for "acquisition of physical and chemical instruments, in order to create, in the next few years, a professoriate in experimental physics and chemistry in Mitau." The will did not come into effect due to protests by his kindred, and now only fragmentary evidence regarding the scientist can be found in the Latvian State Historical Archives and museums. In Latvia, his name remains for the most part in oblivion; still a detailed investigation of his surprising scientific heritage was carried out in the 1960's. Presently, Grotthuss has been "taken over" by Lithuania: in 1994, the Lithuanian Academy of Sciences, by solicitude of the Grotthuss family members resident in Germany, established the Grotthuss Prize and Award for achievements in science. On 5–8 June 2005 in Vilnius, the International Society of Electrochemistry (ISE) and Institute of Chemistry (Vilnius) organised the Theodor Grotthuss Electrochemistry Conference (to mark the 200th anniversary of his electrolysis theory). It is planned to dedicate a special issue of the international journal *Electrochimica Acta* to the main reports of the Conference.

We can state that, in a purely scientific sense, the work of Theodor Grotthuss was the highest contribution of the Courland Society for Literature and Art and also one of the peaks in the history of scientific research related to Latvia.

Unfortunately, after Grotthuss' passing away in 1822, Pauckers' resignation from the post of secretary of the Society (he was reproached for being far too lavish in publishing special scientific articles) and Watson's turning to Latvian journalism, the purely scientific activities grew scarce and the third volume of articles was left unpublished. The beginning of the era of Czar Nicholas I and the suppression of the Decembrists' and the Polish revolt did not favour the advancement of public activities. It was only in 1840 when regular publishing of compilations of the Society, though having a slightly different trend, was renewed. The correspondence of the Society with numerous academies of sciences, such as the St. Petersburg AS, the Vienna AS, and the German Academy of Naturalists "*Leopoldina*," as well as a part of the Society's archives and a valuable collection of autographs, has been preserved at the State History Archives of Latvia.

In mentioning Karl Watson, I will try to answer a basic question—did the Courland Society have close ties with the Latvians and their enlightenment. In the first supplemented version of the Statute (1817) already mentioned, it was declared that:

However, the Society is not limited to the promotion of taste, love and passion for knowledge merely in the educated circles . . . it has obligated itself to a special and sacred duty—facilitation of an intellectual rise of the lower social strata. For this purpose, it will issue special popular articles, calendars and similar for townspeople and peasants, as well as a periodic newspaper, if this is considered relevant and purposeful. These articles will be issued in the German, Latvian, and Estonian languages. They will be provided for the needs of these strata and edited according to their abilities.

Owing to Karl Watson (1777–1826), an active member of the Society, pastor of Lestene and Strutele and the publisher of the first Latvian newspaper, the Courland Society for Literature and Art became the first public tribune for Lettonics (Studies of Latvian language, Latvians, and culture, or Latvian Studies). Karl Watson was the son of Matthias Watson, professor of Latin at *Academia Petrina*, an intellectual and researcher of Latvian problems himself, who, at the time of the abolishment of serfdom, became infatuated not only with Latvian antiquity and language, but also with the future vision of the Latvian nation. He was supported by the influential Lutheran Church superintendent of Livland Karl Sonntag (1765–1827), a contributor to Garlieb Merkel's endeavours and also a member of the Courland Society for Literature and Art. It was at the meetings of the Society that Watson delivered many lectures on the Latvians; during the 1817–1821 period, he presented papers at nearly half of the meetings of the Society.

The following lectures by Watson on the Latvian Studies, delivered at the meetings of the Society, deserve to be mentioned:

1817, July. An Action Plan by Which the Courland Society for Literature and Art Can Raise the Cultural Level of Latvian Peasants

1818, December. On the Nations of the Lett [Baltic] Genus, Related Peoples and the Lands They Inhabit

1819, January. On the Slavonic-Russian Language Descent of the Latvian Language and the Gothic and Finnish Influences on the Latvian Language

1819, March. On Language Relations in the German Baltic Provinces and on the Germanisation of Latvians

1819, November. The Ancient Boundaries of the Couronian Lands at the Time of the German Arrival (Based on the Documents and Ancient Chronicles of the 13th Century)

1820, April 16. On the Historic Significance of the Area between Libau (Liepāja) and Tilsit

1819, January. A Hydrographic Outline of Courland

1819, September. On the Name of Mitau (Jelgava)

1820, October. On Insects Which Caused a Disaster in the Fields of Courland in Summer 1820.

In addition, Karl Watson reported at the meetings of the Society on the ancient Semigallian chieftains Vestarts and Nameisis, on the Vots living in Courland, on “specious pagan beliefs of the Lithuanians.” “Peasant Songs” (a part of “The Seasons” by the Lithuanian poet Kristijonas Donelaitis, published by Prof. L. Resa), translated by Watson, was published in the supplement of the Latvian calendar (1822, 1823), but Watson’s studies on Lett (Baltic) peoples and their relation with the Slavs were being published as far back as 1842, in the well-known St. Petersburg magazine *Сын Отечества* by Dmitri Yazikov.

In his studies and publications, Watson discussed Baltic (Lettic) linguistics, the relation of this language group with the Slavic and German languages and the influence of the Finnish languages and endeavoured to interpret the materials of the ancient chronicles. To a great extent, Watson continued Merkel’s tendency towards romanticisation and idealisation of the ancient Latvians, though basing it more on specific linguistic and historical material. Still, many unjustified and later disproved claims (such as the one that the Heruli of German descent, who deposed the last Roman emperor in 476, could be identified as Latvians) can be found in his writings.

The public discussion that took place at the meetings of the Courland Society for Literature and Art held in February–April 1819, regarding the issue of the possible Germanisation of Latvians as the main topic, was of major importance. Following the views of the younger Stender, Adam Conradi, a pastor of Salgale, publicly expressed

his opinion that the Latvians, in the name of higher humanity and culture, for their own sake, should be Germanised in order to reach a higher level of education and social position; he concluded his report by the notorious slogan: “*Keine Letten mehr!*” Conradi also declared that only language separates Latvians from Germans. The faith and fatherland are the same. The abolishment of serfdom brings both nations together; this natural process should not be hindered. Seeing something better in a German, a Latvian would readily acculturate. A Latvian of today has got nothing to be proud of when it comes to his ancestors. The Latvian language is so poor that nothing would be lost when losing it. No national character or spirit has been formed under autocracy and bondage. However, all the other participants of the discussion—the Mitau Gymnasium Professor Karl Wilhelm Cruse, Dr. Ernst Trautvetter, pastor Karl Elverfeld, lawyer Gerhard Christoph von den Brincken, president of the Courland Province Law Commission Georg Benedikt von Engelhardt and Watson himself presented a united and ardent front, insisting that knowledge should be made accessible to the Latvians in their own language.

Prof. Cruse: “The free Latvian in his new status cannot manage with the erstwhile servile language; it has to be remade. The impoverished state of the Latvian language cannot be the cause for its extinction; it is not asked if the dead man was rich or poor, when investigating a murder.”

Watson: “Any nation can be educated in its own language, which is the guardian of its nationality. Not only the elimination of a language is very difficult, but also it is eminently harmful and unjust. The Latvian propensity to learning the German language does not arise from their love towards the German language and culture, but it is only the arrogance of the wealthy and the opinion that, by learning the German language, one can move up in the world.”

Cruse, Watson, Sonntag, also Elverfeld, Engelhardt, and Koeler did emphasise that a new kind of terminology had to be shaped in the Latvian language, new words were needed for both translating and explication of laws. Also, the language of the Latvian Bible had to be reviewed—the new age and the new living conditions needed a new language, but it had to be Latvian not German.

Watson put forward a proposal that the Courland Society for Literature and Art should be chartered to publish a yearbook or a monthly magazine in Latvian. Giving an answer to this proposal, Marquis F. Paulucci admitted that the Society could deal with these issues, but that it should not be granted monopoly rights in this respect and the range of information rendered to Latvians should remain restricted. Finally, it was decided that, beginning with the year 1822, Watson was allowed to issue a weekly newspaper *Latviešu Avīzes* [The Latvian Newspaper], which he, along with Johann Martin Peters Steffenhagen, did publish and edit until his passing in 1826. The editorial office of *Latviešu Avīzes* living in a close symbiosis with the Society was located

on Kannulējēju Street, in the same house belonging to Steffenhagen where the Courland Society for Literature and Art and Mitau Museum were founded.

*Latviešu Avīzes* was usually described as a publication of clerical and conservative trend, a suppressor of the Latvian spirit and combatant against the national endeavours, a propagator of the German pastors' ideology among Latvians. It probably was this way later, at the time of Neo-Latvians, but during Watson's time this newspaper could be characterised as a promulgator of moderate enlightenment aspirations and an educator of the people, of course in the sense of the Old Stender, not Merkel. It improved the knowledge of the Latvian peasants, provided them with a wider outlook and, on the whole, by expressing clerically patriarchal nationalism, matched the Latvian peasant mentality and intellectual level of the time.

It is of significance that in the second issue of the newspaper Watson offers a simple mathematical problem to the Latvians:

Who knows how to solve this? Two herdsmen with their pigs met on a hillock. Fritz, said Hans, give me one of your pigs, then we both will have the same number. No, Fritz answered, give me one of yours and then I will have twice as many as you do. And now guess, my dear reader, how many pigs did each of the herdsmen have? (*Latviešu Avīzes*, 1822, Vol. 1, No. 2)

Unexpectedly, the publishing of this problem provoked the first public polemics in the Latvian press, which lasted for four months. A postman in Kandava, Krebsberg, and Nukke Miķels considered that the article made fun of the readers and asked that the newspaper be written differently. Readers began suggesting in a quite simple-minded manner what the newspaper should write about. Ērmans Nāting and Kristis Nāting, on the other hand, said that people in Ēdole liked the puzzle. Jānis, son of the deceased Klibīšu Anss, suggested counting on the pastors and pleaded "those newspaper providers to give us all kind of stories of our Courland, which are for us of greater utility than those from Germany, although they are good also..." Andreass, son of Mārtiņš from Bauska, asserted that pig counting had not been mockery at all. Developing a wider discussion, Veczārde foreman Jēkabs Pisenieks suggested: "Let us all agree and give our dear Courland the name of New Germany!" He also expressed his assurance that "once we give up our old superstition, fatuity and grudges, we will become equal with our German brothers."

Following are some quotations. Pisenieks: "I am inclined towards thinking that we Latvians can grow equal with the German farmers in all kinds of good knowledge, field cultivation and school procurement."

Elverfeld (Jr.): "For all that, I give you this advice from a clear conscience: don't you ever dare having a mind of turning into or calling yourselves the new Germans. For when a nation gives up its nature and language and takes on the nature and lan-

guage of another nation, it becomes awry in its heart sense. Every nation has its reputation and a special name. Indeed, you are no worse than Germans. The Latvian nation is quick in understanding.”

However, also a contrary opinion resounded in the dialogue of readers: not everything that is good for Germany is good for Courland—that is what pastor Katterfeld and Elverfeld, Jr., said. In general, this can be read almost as the present-day Internet discussions on Latvia in Europe.

During Watson’s time, the Courland Society for Literature and Art was mentioned in *Latviešu Avīzes* at least four times (in *Latviešu Avīzes*, 1822, No. 9; 24 May 1823; 1824, No. 28; 1825, No. 27), both owing to the “Museum” in Mitau, which could also be viewed by Latvians and the holdings of which were located at Steffenhagen’s publishing house, and also to the meeting of the Society in 1824, where the head obstetrician of Courland and conservator of the Mitau Museum Johann Liechtenstein (1787–1848) (son of a Hamburg rabbi and friend of J. F. Recke) compared the hygiene of German and Latvian peasants, promoting a number of practical improvements.

Liechtenstein said, “The German peasants are much stronger, healthier and sprightlier than ours, and they live longer.” That is because “frequently the Latvian children are born weak, because here they do not take much care of a pregnant woman” and “the rural midwives do not know their trade that well,” and “the Latvian children remain unwashed at times, therefore scabies can be found almost in all homes,” as well as “there are both good and bad wells by our houses, and sometimes there are no wells at all, only a pit where muddy water collects from everywhere.” Liechtenstein teaches the landowners to take care “that a good well by every home is dug out, and that always in every tavern some good beer is kept in order to uproot that disgraceful and unwholesome brandy drinking, which has made some Latvians old and weak prematurely.” And also, “The Latvian maids should be taught better cooking and keeping of the nourishment, so that it would not become unsavoury and unwholesome that soon. The Latvians should also be helped to get sufficient salt, which is a very necessary thing.” (*Latviešu Avīzes*, 10 July 1824, No. 28). Certainly, this kind of instruction in hygiene can be appreciated as rather appropriate and well-timed in order to modernise the rustic household conditions in Courland.

It was said regarding the meeting of the Society that “finally, secretary Dr. Koeler reads those names of the 14 gentlemen and one lady, who had been elected to the status of Society members from Kur- and Vidzeme as well as from Germany” (*Latviešu Avīzes*, 10 July 1824, No. 28).

Watson also bids Latvians to visit the Jelgava Museum:

One big room and three chambers have been built and painted nicely, and many things from Courland are kept here together already. All the printed books, which

have ever been written in Courland or have been written by Courland inhabitants, can be found here, the pictures of all our prior landlords and landladies can be seen here as well as those of the many high and lower lords, who have been honoured in Courland, and some of the pictures of the pastors and superintendents, whose work has been beneficial for our fatherland. In the three chambers, different birds and some wild beasts can be seen lifelike, in glass boxes, as well as butterflies, insects, plants, flowers, and some unusual things which have been found in Courland. Every Thursday evening, three gentlemen to whom supervision has been entrusted show these things to everybody who is willing to see. Also, we—Latvians—are admitted, and, if the honourable reader is in Mitau and has both time and the wish to see, then he has to come to Steffenhagen's house on the appointed day and time, where he, free of charge, will gladly be shown all these riches. If one or other of us finds some kind of peculiar thing, or shoots a peculiar bird, it will be accepted for keeping in gratitude, and the name of the benefactor will be mentioned at each thing. But, of course, not every trifle can be accepted; the thing has to be peculiar indeed and to belong to Courland (*Latviešu Avīzes*, 2 March 1822, No. 9).

Moreover, already five years prior to the appearance of *Latviešu Avīzes*, its anticipated editor Karl Watson had “the model page of a Latvian national newspaper” read at the 8 August 1817 meeting of the Courland Society for Literature and Art, giving an example on how this periodical people's newspaper *Mēneša Avīze* [Monthly Newspaper] or “An advisor to the new freedom” should be structured. This “model page,” *inter alia*, provides information on the real beginning of the Courland Society for Literature and Art itself, namely, on its first meeting on June 1817:

II Newspaper news. Mitau, on the 19th day of June. A new Society has sprung up that wants to take care that the high wisdom and, instead of being limited to a few, is more widely distributed to both the high and the low. The honourable Governor General, with the approval of the emperor, has endorsed this good decision and the statute, and has become a member of this Society himself. Lords of the rank of noblemen and others, especially pastors, are joining the Society. Our former duchess has now become a member of this Society, and has been so merciful as to donate 1000 silver thalers to the Society. This Society also wants to look to the growth of knowledge among the Latvian people” (Documents on formation and commencement of activity of “The Latvian Newspaper” (publication and commentaries by Zelče and Jakovļeva) have been published in the magazine “Latvijas Arhīvs,” 1994).

Precisely the described initiatives of the Courland Society for Literature and Art and the discussion on the possible Germanisation of the Latvians, as well as the regular appearance of Watson's *Latviešu Avīzes* were the circumstances that motivated the German pastors to found a new society, provided especially for the study and school-

ing of Latvians. This Latvian Literary Society (Lettische Literarische Gesellschaft), or the Latvian Friends' Society, was founded in 1824, with its Statute approved in 1826, and with the actual inception of its work in 1827. The initiators of the founding of this Society—*Letto-files* Watson and Sonntag—did not experience the inception of the work of the Society themselves due to their passing away. Watson left eight children of his own and one foster child. The Latvian Friends' Society functioned both in Rīga and Mitau, though more in Rīga, taking over the schooling of the people from the Courland Society for Literature and Art.

Neither a discussion of the Latvian Friends' Society's contradictorily valued work, disagreements with the Neo-Latvians and opposition towards founding of the Rīga Latvian Society, nor the contraposition of *Latviešu Avīzes* and *Pēterburgas Avīzes* [The Petersburg Newspaper] have been set as the main task of this report. I have only wished to emphasise that it was exactly the Courland Society for Literature and Art that gave the initial impetus for founding of the Latvian Friends' Society, which, in its protocols of 1855–1857, used to name itself “Academy of the Latvian Language and Literature” and issued a scientific journal *Magazīn*. Similarly as the Courland Society for Literature and Art, the Latvian Friends' Society had an important role in the integration of Vidzeme and Courland and establishment of a unified Latvian culture. The perennial chairman of the Latvian Friends' Society, well-known researcher of the Latvian language and ethnography, and borders of the territory inhabited by Latvians, August Bielenstein (1826–1907) (honorary member of the Courland Society for Literature and Art and, since 1877, corresponding member of the St. Petersburg Academy) emphasised the succession of the two societies as well as the role of the Courland Society for Literature and Art in the initial study of the history and ethnography of Latvia:

The Courland Society for Literature and Art as early as in its protocols of the 1820's has been looking at its fatherland's history. From this Society (which, since the first years of its functioning, has paid special attention to our peasant nation) in the 1820's arose the Rīga Literary Society, which came to a self-sufficing existence. The secretary of this Society [Courland Society for Literature and Art]. Döhring achieved special success in archaeological exploration of hillforts at the beginning of the [19th] century.

While the succession in the functioning of the Courland Society for Literature and Art and the Latvian Friends' Society could be characterised as very clear and apparent (as in the work of August Bielenstein himself), then the relationship with Rīga Latvian Society and its Science Commission (founded in 1869) was sometimes tense and antagonistic. However, one must admit that, looking at the century, even Fricis Brīvzemnieks and Krišjānis Barons have taken advantage of several early German depictions on Latvian folklore and ethnography. The same can be said of the



Neo-Latvians, who were eager readers and users of the *Magazin* published by the Friends' Society, and the work of August Bielenstein still has not lost its scientific significance. Members of the Society facilitated organisation of the first Latvian Song Festivals in Dikļi and Dobele. This also was the environment from which Ansis Līvētāls, Juris Neikens, Jānis Cimze, and other "Old Latvians" descended from. We have to bear in mind that later on the Friends' Society was the one to honour Krišjānis Barons, Ansis Lerhis-Puškaitis, and brothers Reinis and Matīss Kaudzītes. The destruction of Bielenstein's manuscripts in the heat of the 1905 Revolution in Dobele is something that the revolution cannot be proud of now, on its centennial. This clarification of complicated relational problems between Latvians and Baltic Germans has remained topical and ambiguous in our political, economical, and cultural history. I have to remark that *Estonische Gelehrte Gesellschaft* (founded in 1838 as the Estonian analogue of the Latvian Literary Society) has continued to function up until today.

Also, the role of the Courland Society for Literature and Art is worth mentioning, both for the Letonic content of its early activities and for the monumental bibliographic dictionary of literates and scientists published (1827–1832) by Johann Friedrich von Recke and Karl Eduard von Napiersky (and also for the later composition of the significant reference publication by Isidor Brennsohn and Gustav Otto, which still remains an important contribution to the history of medicine and pharmacology), as well as for the systematic gathering and preservation of the collection of the Courland Province Museum.

During K. Ulmanis' authoritarian regime, the Courland Society for Literature and Art was placed under the auspices of the Rīga Herder Institute as a German scientific society of Courland – Zemgale, and later, during the repatriation of Baltic Germans at the end of 1939, it was disbanded. One of the last presidents of the Society was the director of the Jelgava German Gymnasium Wilhelm Schlau, whose son, professor emeritus in sociology, at the Mainz University, Wilfried Schlau has been a foreign member of the Latvian Academy of Sciences since 1992. He has also recognised our efforts towards maintaining the historic relationship between this Society and the Latvian Academy of Sciences, although the Karl Schirren Society in Lüneburg, which was organised by the old Baltic Germans, has been declared as the formal continuator of the functions of the Society. Recognition of this spiritual succession has facilitated an objective understanding of the scientific and cultural inheritance of the Baltic Germans, which has also been sponsored by the deceased professor Dietrich André Loeber, who, as a patron, provided a sizable supporting fund (from his private finances) for our Academy of Sciences.

The chain of numbers between the seal of the Courland Society—a lyre—and the blazon of the Latvian Academy of Sciences—an owl—provokes reflection. The connection between the first number (1815) and the numbers 1869 and 1932 (years of

foundation of the Rīga Latvian Society Science Commission and the reformed Science Commission—*Academia Scientiarum Latviensis*) as a link for the Latvian Friends' Society, is logical although fairly contradictory. Then come two numbers which have marked two points of direction in the history of the Latvian Academy of Sciences, and which are also connected with up-coming anniversaries—70 years ago, on 14 January 1936, the first division of the Latvian Academy of Sciences, the Institute of the History of Latvia, was established by a law of the Cabinet of Ministers of the Republic of Latvia and the President of the Cabinet of Ministers, Kārlis Ulmanis, who thereby declared the intention of founding the Latvian Academy of Sciences. In its turn, 60 years ago, on 14 February 1946, the Academy of Sciences of the Latvian SSR was founded. Resolution No. 2824 was adopted by the Council of People's Commissars of the USSR on 4 November 1945 (it was signed in October by Vyacheslav Molotov).

A conference of Latvian scientists on the founding of the Academy of Sciences was held in Rīga on 15 November, and on 7 February 1946, Vilis Lācis signed the Council of People's Commissars of the USSR resolution on the founding of the Academy of Sciences of the Latvian SSR. Kārlis Ulmanis and Vilis Lācis would hardly have accepted the Courland Society for Literature and Art, which was given the blessing of Dorothea Biron and Marquis Paulucci, however, the history of our Latvia contains more paradoxes and mazes than has been assumed. Finally, comes 14 February 1992, when this succession is accepted in the Charter of the LAS; and many of those sitting in the hall right now were there at the time. Such is the synthesis and trace of succession through ages and people.

Of course there is no reason to maintain that the Latvian Academy of Sciences was founded in 1815—that would be a vulgarisation of history—there is no direct succession. Nevertheless, noting of the date of birth of the Courland Society for Literature and Art in the standard of the Latvian Academy of Sciences is historically justified as a way of paying honour to the Baltic Germans.

Let us remember that the work of Garlieb Merkel, the early intellectuals of Latvian descent David Hieronymus Grindel and Karl Konstantin Kraukling from Dresden, and the geologist and archeologist Konstantin Grewink (Krieviņš) has contributed to the Society. The proceedings of Grotthuss, Pander, Eichwald still comprise a part of the world science endowment, and Karl Watson should be mentioned as a *Letto-file* and one of Lettonistics pioneers and contributors to the schooling of Latvians. There is the following paragraph in the preamble of the Charter of the Latvian Academy of Sciences:

In the restored Republic of Latvia, the Latvian Academy of Sciences facilitates the development of sciences and carries out scientific research. It ensures that all types of knowledge that Latvia and the Latvian people have given and can give to world science and culture—national culture, language, folklore, literature, and

social and economic experience—are realised, studied, perfected, maintained, and passed over to future generations. It studies and preserves the historical traditions of Rīga and the regions of Latvia and gathers information on the status of the Baltic countries in the world.

All the above are tasks, leastwise fragmentary, that have been carried out by the Courland Society for Literature and Art during the first years of its activity. And I would like to highlight the last mission—engagement of culture and science—as well as that of schooling of the nation and preservation of its traditions. This is the reason for which we remember the Society and its founders today, also recalling the positive aspect of the Baltic German contribution to Latvia, admitting that it is not merely of historic relevance. It is a great honour to inherit the traditions of a society such as this, although in another city—Rīga (not Jelgava) and at a completely different time. By these traditions we ourselves become richer and more European.

GENERAL MEETINGS OF THE LATVIAN ACADEMY  
OF SCIENCES

2005

Two General Meetings of the LAS were held in 2005.

*The Spring General Meeting of April 14*

An opening address was made by Juris Ekmanis, President of the LAS. He was speaking about the prospects of science, opening thanks to the fact that the Saeima had unanimously accepted the Law on Scientific Activity on the same date. He cited, “Passing over to the Saeima the annual Law of State Budget, the Cabinet of Ministers anticipates a yearly growth of science funding not less than 0.15% of the GDP until the state allocated funding for scientific activities would reach 1% of the domestic product.” The General Meeting was addressed by Gundars Bērziņš, Minister of Health of the Republic of Latvia. Full Member of the LAS Ivars Kalviņš gave his academic lecture “From the idea to medicine—utopia or reality in Latvia?” A review about the activities of the LAS in 2004 was given by Raimonds Valters, General Secretary of the LAS. The report of the LAS Supervisory Council was read by Full Member of the LAS Pēteris Zvidriņš, Chairman of the Council.

*The Autumn General Meeting of 24 November*

In his opening address J. Ekmanis, President of the LAS, noted the most significant events of Latvian science in 2005, “The second year of full partnership in European Union is approaching the end and many conditions of our scientific activities have essentially changed in this period. On May 19, the Law on Scientific Activity came into force. Basic positions for the development of scientific technologies and innovation strategy have been worked out and new priorities of science determined.” The 1<sup>st</sup> Congress of Latvian Studies with the participation of V. Viķe-Freiberga, President of the Republic of Latvia, was an important event of the year. “This is the first year when the Latvian Studies have received essential state funding as they deserve being among the main priorities Latvian science. This year additional funding has been allocated not only to the Latvian Studies, but also to the development of science in general. Increased funding of the gross domestic product (GDP) by 0.15% is not only fixed in the law, but has been really voted into the budget for 2006. This fact

principally changes the situation of science. We will have to master the utilization of money reasonably and purposefully.” Full Member of the LAS Jānis Stradiņš made a report “The Kurzeme Society of Literature and Arts (founded in 1815)—the beginning of the Academy of Science in Latvia.” The Grand Medal of the LAS was given to Full Member of the LAS Elmārs Blūms, he read the academic lecture “Thermophysics of magnetic fluids.”

### *The 1<sup>st</sup> Congress of Latvian Studies*

The 1<sup>st</sup> Congress of Latvian Studies was an event of special importance for the scientific and public life. It summarized the work having been done since 1995 when Latvian Studies were started and pictured its future prospects. Hundreds of publications, 32 meetings of the LAS, involvement of different scientific research structures, Latvian Studies as one of the state recognized prospective directions of science—that is how we could characterize the development of this theme.

The Congress started on October 21 at the Daugavpils University: “Latgale as the phenomenon of borderline situation” (the following three sections were working: “Borderline situation: historical process,” “Borderline situation: language, literature, culture,” and the readings by Igors Činnovs, “Phenomenon of emigration in literature”). On October 24 and 25, the Congress took place in Rīga. 235 reports, including representatives of nine countries, were working in 12 sections. A conference was held dedicated to Kr. Barons “Regions of Latvia: traditions, texts, identities.” On October 24, the Congress was officially opened in the Grand Hall of the Latvian Society building by Juris Ekmanis, President of the LAS. The introductory speech was given by Full Member of the LAS Vaira Viķe-Freiberga, President of the Republic of Latvia. The audience was addressed by Full Member of the LAS Ivars Lācis, rector of the University of Latvia; Aivars Aksenoks, Chairman of the Rīga City Council, Valdis Rūmnieks, Chairman of the Rīga Latvian Society. *Dr.habil.philol.* Ina Druviete, Minister of Education and Science of the Republic of Latvia, full members of the LAS Jānis Stradiņš, Maija Kūle, and Tālavs Jundzis reported at the plenary meeting. One could see the exhibition of the initial sources of Latvian Studies from the collections of handwritings and rare books in the section “Sources of Latvian Studies and its utilization” (Full Member of the LAS Saulvedis Cimermanis, head of the section) of the Misiņš Library.

Full Member of the LAS *Vaira Vīķe-Freiberga*,  
President of the Republic of Latvia

Speech at the Opening of the Congress on 24 October 2005

Highly honourable Organizers of the Congress! Dear Scientists, Guests! Ladies and Gentlemen!

This is the first Congress of Latvian Studies in the history of our independent Latvia and it is a great pleasure to participate in the events when new traditions that would further go down in history are being founded. Not everybody can participate at the very beginning, at the first event. Many years later people will remember it, look back and evaluate it.

My wish is the following: let the success of this congress, this meeting become a stable ground for further activity and similar congresses for many years. Latvian Studies has risen as a priority research field for our state science and research programmes. It does not mean that it has been just born. Latvian Studies is a merging of many diverse fields, it is like a river being fed by many streams. These streams often go deep back into the history of scientific research when those actions, those observations and those documents were not called science, were definitely not called Latvian Studies, but they comprise many materials and notions. Probably, Latvian Studies will become a separate branch of science but for now it is an inter-branch of knowledge where the most important thing is the element of coordination and mutual interaction, basically among the researchers in Latvia and in other places of the world where people are interested in this vast selection of themes, in one word called—Lettonics (Latvian Studies).

I am really happy to see that there is a whole dozen of sections in the Congress these days in Rīga, but the thirteenth, “the devil's dozen” has already accomplished its work in Daugavpils, that this number is open and regrouping, transformation would probably take place in future and I truly hope that new sections will join the present ones. Support and encouragement of the national culture and humanitarian sciences is the duty of each self-respecting nation and it is not only a moral duty of a self-respecting independent state but also a practical necessity and should be carried out in all possible ways if we, as an independent state, wish to be recognized in the world. And it is essential that we ourselves should know who we are, what we are, from where we come and only then we ourselves would be able to decide what we want to become and where we want to go.

Lettonics is unique for Latvia, it belongs to us, it is our responsibility, our wealth, our pride, our own breath and soul but it belongs not only to us. It belongs to the great European family that we have joined formally as the European Union. It formally be-

longs to the whole continent, to the cultural heritage of the whole world. The traditions of our Song Festivals have been included in the UNESCO non-material cultural heritage. There was a good reason for it and we have more things to be included. I am happy that scientists from other countries will participate in this congress and I would like to wish that there would be more congresses like this in future.

While travelling in the world, participating with reports in congresses, meetings, and symposiums the scientists of Latvia have a possibility to make Latvia present in European and world culture area, on the one hand, and at the same time it is a possibility to get inspiration, ideas, impulses for the improvement of their own work, for critical contiguity with other streams and directions. This assembling of many branches of Latvian Studies here in Latvia is an essential and necessary stage and it is high time *for it to happen* and I greatly wish our scientists would enter the international circulation with their discoveries, the results of their research, would be able to present the results and include them in broader general topical circulation, both the theoretical and practical one. And I hope and am convinced that we will succeed, that we will manage to involve interested people from other countries who would discover the exact captivating and challenging content of the Latvian Studies, that they will come up with their research, either comparative or other, to enrich all of us.

In a purely practical meaning I want to stress that the state support to research in the field of Latvian Studies seems to be absolutely necessary because we cannot expect that others will help us to understand who we are. The first and the main duty of the state is to provide that there are research institutions in the Academy of Sciences, at the universities, and institutes capable of securing respectful living and life, work conditions and to attract young people, young scientists, our brightest minds who are able to be reflective. We want those who work, manage, investigate for our country; we need all and the brightest minds everywhere. The young scientists must have the chance not to spend their lives in poverty but to be able to choose what they want to do in life, where their hearts call, but which is sometimes impossible due to family conditions. This is a tragedy, which is not acceptable, and there is a categorical necessity for the state to take care and avert the floating of scientists away from science or to other countries. It is very essential that our scientists would access all the technical opportunities the modern life offers us for all aspects of work. First of all we should search for the sources. This is a fundamental question of humanitarian sciences in particular.

Sources—this means not only written evidence about different periods of history, but also material evidence, expressions of material culture connected with preservation, tending and conservation, description, passing over for further circulation, for research. I am astonished that we do not have enough and adequate possibilities to use modern methods for conservation of the archaeological findings collected in the Mu-

seum of History in the Castle of Rīga and to be able to exhibit them and make accessible for the scientists.

I am astonished that the collections of our national costumes are stuffed one upon another and crumpled in narrow wardrobes, doomed to mildew and ravages of time. There are many things that astonish me and also you.

We are in a badly need of better provision of material infrastructure, our books are damaged by mildew in inadequate libraries, we have a line of really dramatic needs and we must find means to stop the destruction process of those treasures and, on the contrary, to bring them to light, to polish them as precious stones and make them seen for everybody—researchers, foreign guests, our own schoolchildren, and the citizens.

As an inter-branch of knowledge Latvian Studies, indeed, like a river should be fed by many streams and I truly hope that the scientists participating in these two very intense days will get impulses from what their colleagues are doing in other branches. As a scientist, I have always found these inter-branch conferences very interesting. Next to the ideas and latest discoveries in our own speciality we can have a look at the events of other branches where there are interesting discoveries and aspects helping us in our own work.

Side by side with the investigation of sources and technical preservation a great scientific and research work is done for the translation to make these sources widely accessible and for their analysis from various aspects. All of this should be accessible in an electronic form letting as many as possible scientists to see them, including those in other countries. That is why I think about translations into English or other wide-known languages of the world as well. We have a great job ahead of us, not to mention the countless doctoral thesis I can already see reflected in the programme of the congress.

The transfer of the compiled and collected conclusions and facts in a form accessible and comprehensible for broader society and for youth at primary and secondary schools, for the university students, for children and youngsters, for any grown-up continuing his lifelong education is very essential. This is to escape the situation when education is being stopped as soon as the last diploma is received, to have in circulation accessible information either in printed or electronic form giving all the citizens of Latvia possibilities either for self-education or to continue self-perfection in different public organizations in order to obtain true intellectual light praised by the choir singing here a moment ago, and which is called virtue in Latvian folk songs. Virtue is a very interesting notion in the folk songs—it is knowledge but in the meaning that today we understand intellectual knowledge. These are practical skills to a great extent, e.g. to know how to prepare wool, to card, to spin, to paint, to weave, to prepare, to embroider but these are also aesthetic and moral values. All of this is included in the



Latvian notion of virtue and I think Latvian virtue is summing up the whole theme of the Latvian Studies.

I wish all the participants of the congress to have very fruitful and pleasant two days and I especially wish you to receive a new charge of energy that would allow you to return to your work vigorous and full of energy and to attract a broad range of people interested in your work. Let this historical congress bring fruit! Let this and the following Congresses of Latvian Studies help the Latvian people, the Latvian state, Latvian nation prosper, blossom and flourish!

## 2006

Two General Meetings of the LAS were held in 2006

### *The Spring General Meeting of 6 April*

In his opening address Juris Ekmanis, President of the LAS, pointed out that at last we could talk about positive phenomena in Latvian science and economics in general though the expected did not coincide with the real as there were pyramids of state power administration being built behind the shield of the Law on State Administration System. On top of several pyramids there is a ministry and the reorganisation and funding of science, universities, and higher education establishments depend on its capacity. We experience a situation when ministries themselves create regulations, they finance and control, the scientist is not working but constantly fighting as it was in the Soviet period. But the fight is not a complete disaster—the grant of the LAS was won by the end of January, the funding for the institutes by the end of February, the state research programmes would luckily receive funding in April (true, there is a precondition—we have to report and write new applications already in June). There is hardly a person who remembers that the starting period of all the funding was the beginning of January. J. Ekmanis invited to enlarge the involvement of young scientists in the work of the Science Council and in the activities of the Academy of Sciences as due to co-operation and possibilities to practice in foreign centres many young people have broader and more advanced understanding of the problems and in the end they will be the ones to carry out the strategy of scientific and state development. I. Druvietē, Minister of Education and Science, addressed the participants of the General Meeting. Full Member of the LAS Ē. Mugarēvičs, laureate of the Baltic Assembly Year 2005 Prize in Science, read the academic lecture “Livonian chronicles and archaeological data about the Baltic nations in the period of 12<sup>th</sup>–14<sup>th</sup> centuries.”

## *The Autumn General Meeting of 7 December*

An opening address was made by Juris Ekmanis, President of the LAS. Full Member of the LAS Baiba Rivža, Minister of Education and Science of the Republic of Latvia, informed the audience about the state budget for science in 2007, the governmental positing of funding for the period till 2010 as anticipated in the declaration of the Government and about other important tasks of the Government, including balancing of the status of scientific establishments. Then the participants feted Full Member of the LAS Rihards Kondratovičs, the laureate of the Grand Medal of the LAS in 2006, and he received the award. Afterwards the laureate read the academic lecture “Introduction and breeding of rhododendrons in Latvia.” Election of the new members of the LAS followed. Three full members, eight corresponding members, and three honorary members were elected.

### **This was a special year**

Introductory words by *Juris Ekmanis*, President of the LAS

Highly honourable Madam Minister, highly honourable Members of the LAS, Colleagues, Ladies and Gentlemen!

This is a traditional General Meeting called the Autumn General Meeting in our Statute. Due to the corrections made by NATO Summit we have gathered now in the first month of winter—December. But probably due to the fact that our meeting is called the Autumn General Meeting you can see autumn outside and no winter signs of December. I hope this mismatch of the Statute and the jobs will be the only sample of inconsequence of the LAS.

December is the month of reports of the passing and plans of the coming year. Here in the Academy we have started to examine the proposals of scientific establishments and scientists for the traditional list of the most significant achievements of Latvian science in 2006. There is only the stage of expertise left and afterwards it will be published.

I am happy to note that the initiative of the LAS to publish ten best achievements of science every year, started several years ago, has been overtaken by the universities and several colleges, e.g. University of Latvia has already published its list. **Standing on this rostrum I would like to invite all establishments of higher education in Latvia to take over this tradition and in the end of every year tell the society what achievements have been reached in the given year. Then it would be much easier**

**for the LAS to summarize the most significant achievements.** Who is going to praise us if we are not showing the facts about our accomplishments and for what we want to be paid in future, also from the state budget.

The year 2006 was a special year.

Science priorities have been fixed, legislation specified, new state programmes started, reorganisation of the Latvian Council of Science has been begun, etc. The majority of ministries support the scientific programmes and a stable co-operation is being established, the closest, certainly, with the Ministry of Education and Science.

The year passed in the conditions of essentially increasing funding, not to speak about the EU money what is being still promised. But the debates and planning how to use the EU money in 2007 have been started. As they say now—we will master it.

It looks like none of the previous meetings has been held without talking about money. In earlier years these talks were about the fact that there is little money. In the last two years, the contents of the question about money has changed for 180 degrees—now we are talking about a new problem—what would be the best way to use the money, how to gain maximum return.

It is not easy for an ordinary scientist to grasp at least approximate calculations as it is impossible to find clear information about the sums allocated to science either in the Latvian Internet pages of the EU funds or on the ministries sites, concerning 2007 as well. Until now, we can find the so-called principle of transparency only in the Internet page of the Latvian Council of Science—we can see that a certain sum of money has been allocated to each project. Thus, everybody can sum up the money allocated to the projects of the Council of Science and other organisations and it will coincide with the sum indicated in the state budget. Nobody has precisely defined what else is the science money—is it the money for science of the higher educational establishments or the money for innovations... And that is the reason why we get different results when we start to calculate the fundamental indicator—percentage of science funding from the GDP. We, here in the Academy, calculated 0.52% for 2006, Ministry of Economy—0.57%. Scientists say, they coincide within the limits of mistakes. The main thing is: at last there is more money, much more than in the previous year.

This year approximately 50 million lats were spent for science and development in Latvia. In 2007, this sum will be almost doubled. The increase of 0.15% of the GDP anticipated for the second time already in the draft budget for 2007 will be added. The rate is growing and I hope the real money arriving at the labs and colleges as well. Full Member of the LAS B. Rivža, Minister of Education and Science, has the latest information about the proposals submitted to the Saeima and she will tell us more about it.

I think it is important that the new Law on Scientific Activity has been put in motion but it turns to be quite a difficult task.

And now a few proposals (I hope they will be discussed in the debates) how to master the financial means with maximum return. Here we encounter several challenges (as we say now).

The main of them is the involvement of the **business sector in research and innovation**. If the bonus system is not created, the policy of tax remission being the main, nothing will come out. Why there are remissions for aviation companies but not for the businessmen who wish to work together with scientists and create a new Nokia? And it is clear that if there are remissions for businessmen really supporting research, the ministers would not have to quarrel about the support with the Council of Competitiveness.

Another challenge is connected with the system of higher education: **the amount of graduates in the specialities of engineering and natural sciences should be notably increased**. Today the given indication in Latvia is only 70% of the EU average showings.

And the third challenge I would like to mention is—**we must do our utmost to hold in Latvia the specialists and scientists prepared in Latvia**. And we have to find the way how to return back from foreign countries part of those who have left.

Of course, there is still a line of problems. But these are the three decisive ones for Latvian science in the fight for its place under the Sun in our country and in Europe.

## MEETINGS OF THE LATVIAN ACADEMY OF SCIENCES

### 2005

*Meeting of 3 February*, “Problems of protection of intellectual property in Latvia”

*Meeting of 24 February*, “About problems of doctoral studies”

*Meeting of 16 March*, “Infrastructure of science—recently obtained from EU structural funds—new possibilities”

*Meeting of 28 April*, “National Cyclotron Centre and prospects of its utilisation”

*Meeting of 26–27 May*, “The 4<sup>th</sup> Sēlija Congress”

*Meeting of 6 September*, “The 100<sup>th</sup> anniversary of the outstanding Rigan Walter Zapp”

*Meeting of 14 September*, “The Grand Medal of the LAS—to Professor Edvīns Vedējs”

*Meeting of 7 October*, “Liepāja Pedagogical Academy—the oldest higher education establishment in Kurzeme”

### 2006

*Meeting of 25 January*, “Nanosciences and technologies in Latvia”

*Meeting of 30 March*, “Foreign investment in Latvia—the expected and the real”

*Meeting of 27 April*, “Challenges of lifelong education”

*Meeting of 12 May*, “Latgale Academic park”

*Discussion of 20 June*, “EU research politics and the future of research politics in Latvia”

*Meeting of 5 September*, Creative-scientific conference 70<sup>th</sup> anniversary of Knuts Skujenieks

*Meeting of 29 September*, “Peculiarities of growth and management of meliorated forests”

*Meeting of 14 December*, “The changing role of academic institutions in Latvia: challenges and prospects”

SCIENTIFIC REPORTS GIVEN AT THE MEETINGS  
OF THE LAS SENATE

2005

*11 January*

“Can non-interactive measurements enlarge susceptibility of quantum magnetometer?” (Full Member of the LAS Mārcis Auziņš)

“New transport properties of ferro liquids: Magnetic *Soret* effect and thermoosmosis” (Full Member of the LAS Elmārs Blūms)

“Investigation of glassforming materials for optical wires, ultraviolet and high-power laser optics” (Full Member of the LAS Linards Skuja)

*22 February*

“Factors influencing the amount and nesting of water-birds” (Corresponding Member of the LAS Jānis Vīksne)

“Devastations of tornado “Erwin” in the coastline of Latvia” (Corresponding Member of the LAS Guntis Eberhards)

*17 May*

“German literature and Latvia. 1890–1945” and strategy of investigation of comparative literature in the beginning of the 21<sup>st</sup> century” (Corresponding Member of the LAS Benedikts Kalnačs)

*27 June*

“The first year of Latvia in the European Parliament” (Full Member of the LAS Georgs Andrejevs)

*27 September*

“Investigation of nuclear synthesis (international experience)” (Foreign Member of the LAS Oļģerts Dumbrājs)

“About the course of development of the multi-functional national cyclotron centre” (Full Member of the LAS Juris Tiliks)

*18 October*

“Research and training in medical physics” (Corresponding Member of the LAS Jurijs Dehtjars)

“Basic trends of chemical processing of pulp biomass in Latvia and in the world” (Corresponding Member of the LAS Arnis Treimanis)

**2006**

*10 January*

“Attempts of foundation of the Latvian Academy of Science in the years of independent Latvia (1918–1940) and the Institute of History of Latvia” (Full Member of the LAS Jānis Stradiņš)

“Functioning of the Institute of History of Latvia in the years of the Republic of Latvia and during the occupation (Full Member of the LAS Jānis Bērziņš)

“Contribution of the Institute of History of Latvia to the restored state of Latvia (Full Member of the LAS Andris Caune)

“About teaching of history of Latvia at school (*Dr.hist.* Guntis Zemītis)

*14 February*

Solemn Meeting of the LAS Senate on the occasion of the 60<sup>th</sup> anniversary of the Academy of Science of Latvia

“Tasks and the place of the Academy of Sciences in present-day Latvia” (Full Member of the LAS Juris Ekmanis)

“Academy of Sciences of Latvia: controversial history and future vision” (Full Member of the LAS Jānis Stradiņš)

*7 March*

“The first steps in molecular biology: people, ideas, solutions, perspective” (Full Member of the LAS Elmārs Grēns)

*20 June*

“Latvia in the European science space” (Jan Kozlovsky, representative of the Institute of Future Technologies of Europe in Seville)

“Topicality of Rīga building (concert hall in Rīga, construction of the block around the LAS, etc.) (Full Member of the LAS Jānis Krastiņš)

*12 September*

“Compliance of the targets of national economical development and the structural politics” (Corresponding Member of the LAS Raita Karnīte)

*10 October*

“Structure and dynamics of diatomic molecules: new results” (Corresponding Member of the LAS Ruvins Ferbers)

“Inherited tumours—it is possible to prognosticate and heal cancer” (Corresponding Member of the LAS Jānis Gardovskis)



# INTERNATIONAL CO-OPERATION

Co-operation with other academies of sciences, scientific unions and associations, development of international contacts of scientists of Latvia, maintenance of international scientific relations and representation of science of Latvia in international scientific organizations belong to statutory tasks of the Latvian Academy of Sciences (LAS).

International activities of the LAS comprise

- representation of science of Latvia in international scientific organizations that support and contribute to scientific research and development of science;
- development and maintenance of international contacts with other academies of sciences and similar scientific institutions;
- support of both individual and mutual research within the frames of bilateral agreements of the LAS.

## **Representation of Latvia's science in international organizations and networks**

Carrying out a commission of the Government, the LAS proceeded with the representation of Latvia in the following international organizations:

- NATO Science Committee (up until its dissolution on 29 June 2006);
- EU Scientific and Technical Research Committee (CREST);
- Joint Research Centre (JRC) Board of Governors.

The LAS continued its co-operation with the Latvian National Commission (LNC) for the UNESCO and Vice President Andrejs Siliņš continued to lead the Science Programme Council of the UNESCO LNC, which unites the leaders of UNESCO science programmes in Latvia. In 2005–2006, in the frames of trilateral co-operation among the UNESCO LNC, L'Oreal Baltic and the LAS, which evaluated the submitted applications, L'Oreal Baltic launched presentation of the fellowships "For Women in Science." In 2005, the first three fellowships were presented to *Dr.habil.biol.* Ruta Muceniece, *Dr.biol.* Aija Linē, and *Dr.biol.* Anna Zajakina, and the 2006 recipients were *Dr.pharm.* Maija Dambrova, *Dr.chem.* Māra Plotniece, and *Mag.phys.* Oļesja Starkova.

Since 2004, the LAS has been representing Latvia in the European Academies' Science Advisory Council (EASAC). Vice President Andrejs Siliņš serves as repre-

sentative of the LAS to EASAC and hence attended the regular meetings, including in November 2005, Garching (Germany), the founding meeting of the EASAC Core Energy Group; and in June 2006, London—the session of the EASAC Energy Steering group. In 2006, the EASAC published a report on vaccines, “Vaccines: innovation and human health” that was distributed by the LAS to the appropriate institutions of Latvia.

The science of Latvia was continually represented by the LAS in four non-governmental international organizations, which deal with strategic problems of science development. These included:

- International Council for Science (ICSU), an international nongovernmental organisation uniting both the academies of sciences and international scientific unions.

In October 2005, Shanghai (People’s Republic of China), at the ICSU General Assembly, including the elections of ICSU functionaries, the LAS had the Vice President of the Estonian Academy of Sciences, Ain-Elmar Kaasik, authorized as its official representative.

In 2006, the ICSU (1931–2006) celebrated its 75th anniversary with holding two major events: the ICSU Science Symposium in Paris in July 2006 and the Conference “Global Scientific Challenges: Perspectives from Young Scientists,” which was held in Lindau (Germany) on 4–6 April 2007. The latter was attended by Mrs. Inga Ulničāne-Ozoliņa, researcher of the LAS Centre for Science and Technology Studies.

In October 2006, Zenonas Rokus Rudzikas, foreign member of the LAS, represented the Latvian Academy of Sciences and took part at the 4th meeting of the EU members of ICSU in Paris.

- Union Académique Internationale (UAI), an international union of humanitarian academies.
- International Foundation for Science (IFS).

Full Member of the LAS Uldis Viesturs proceeded with the duties of IFS research adviser, performing the evaluation of the grants, submitted in the field of natural products and food science.

- European Federation of National Academies of Sciences and Humanities (ALLEA), which associates 53 Academies of Sciences in 40 countries of Europe.

In December 2005, a large-scale study into the scientific co-operation of European academies was completed by the ALLEA WG on “Research Co-operation,” led by Professor Jūri Engelbrecht. In the working group, the LAS was represented by its Full Member Juris Ekmanis.

In March 2006, Krakow, the ALLEA General Assembly was attended by President Juris Ekmanis and Chairman of the Senate Jānis Stradiņš. During the Assembly, the new ALLEA President Jūri Engelbrecht, foreign member of the LAS, entered upon his office.

In 2006, consolidating viewpoints of all member academies, the ALLEA delivered its evaluation of development and future of the European Research Area to the European Commission's Directorate-General for Research.

### **Participation in regional and global networks of Academies of Sciences**

The LAS continually participated in the activities of the Central-and-Eastern European Network of Academies of Science (CEEN). On 26 May 2006, Budapest, in the framework of the regular (6th) CEEN meeting, the Budapest Declaration on European research was issued and presented to the EU Council. With the support of the JRC of the EU Commission, the publication "The Central- and Eastern European Network of Academies of Science" was issued, which also included a characteristics of Latvia's science ("The Latvian R&D Scene") by Vice President Andrejs Siliņš.

Since 2000, the LAS is a member in the InterAcademy Panel on International Issues (IAP). The informal network, which spans 92 Academies of Sciences, serves as an adviser to governments and international organizations and furnishes the society with scientifically based explanations and evaluations of current international issues. In June 2006, the IAP released a statement on *Teaching of Evolution*, which was endorsed by more than 60 academies of sciences, the LAS included. In December 2006, Cairo (Egypt) when the IAP General Assembly took place, the LAS was represented by Zenonas Rokus Rudzikas, foreign member of the LAS.

In 2006, the LAS signed the Statute of InterAcademy Medical Panel on Global Health Issues (IAMP), which is a network covering academies of medicine and academies of sciences, holding departments of medical sciences (51 in total). The LAS also endorsed the IAMP statement on support for the global project "Disease Control Priorities Project."

### **Co-operation between the academies of sciences of the Baltic States and the academies of sciences of the Nordic countries**

Co-operation among the academies of sciences of the three Baltic States was successfully continued, likewise the co-operation with the academies of sciences of the Nordic countries.

In June 2005, the 10th Baltic Conference on Intellectual Co-operation, *The Baltic: Past, Present and Future*, was held in Helsinki, Finland. At this event, the LAS was

represented by its President Juris Ekmanis, Chair of the Senate Jānis Stradiņš, Vice President Andrejs Siliņš, and adviser to the President, Jānis Kristapsons. The Finnish Academy of Sciences and Letters, organizer of the 10th Conference, handed over its duties to the LAS, which is to arrange the 11th Baltic Conference on Intellectual Co-operation in October 2007.

In 2006, the LAS carried out several activities in the field of energetics.

In January, a common statement on elaboration of unified strategy of energetics development in the Baltics was signed by the Presidents of the three—Estonian, Lithuanian, and Latvian—academies of sciences, and submitted to the governments of the three Baltic States. Involving scientists of the Baltic States (the LAS was represented by its full members Juris Ekmanis and Jānis Guntis Bērziņš) in the preparatory project on the Ignalina Nuclear Power Plant shall be duly approved.

*Dr.sc.ing.* Gaidis Klāvs (the LAS Institute of Physical Energetics) represented the LAS in the joint meeting of Nordic and Baltic Academies of Technical Sciences, which was held in Helsinki in August 2006.

### **The LAS members' affiliation to other academies of sciences and international organisations, honours**

Many members of the LAS participate in different international scientific organisations, including foreign academies of sciences.

Full members of the LAS, E. Grēns, V. Tamužs, and A. Cēbers have been elected full members of *Academia Europaea*—international, nongovernmental association of outstanding individual scientists (founded in 1988). Corresponding members of the LAS A. Ambainis and A. Kuzmins have formerly received the Baltic *Academia Europaea* Award for Young Scientists (1996).

Full members of the LAS V. Tamužs and U. Viesturs, as well as corresponding members of the LAS A. Krūmiņš and A. Šostaks are members of the European Academy of Sciences *in Support of Excellence in Science and Technology* (founded in 1999).

Within the years 1993–2005, full members of the LAS E. Blūms, A. Caune, J. Ekmanis, I. Knēts, R. Kondratovičs, M. Kūle, J. Lielpēters, T. Millers, J. Stradiņš, U. Viesturs, J. Volkolākovs, and the LAS *Dr.h.c.* J. Vētra have been elected full members of the European Academy of Sciences and Arts (*Academia Scientiarum et Artium Europaea*).

In 2006, full members of the LAS Pēteris Zvidriņš and Vija Kluša were elected full members of *Academia Scientiarum et Artium Europaea*.

Full Member of the LAS J. Ekmanis has been elected foreign member of the Lithuanian Academy of Sciences (March 2007).

J. Stradiņš, full member of the LAS, and Ā. Krauklis, corresponding member of the LAS, have been elected members of the German Academy of Naturalists, *Academia Leopoldina*.

Full Member of the LAS J. Stradiņš is also corresponding member of the Saxonian Academy of Sciences and foreign member of the Academies of Sciences in Estonia, Lithuania, and Georgia.

Full Member of the LAS E. Grēns is corresponding member of the Russian Academy of Sciences.

Full member of the LAS I. Kalviņš was awarded WIPO Gold Medal „Outstanding Inventor, 2005” in 2005 and elected Honorary Academician of the Ukrainian Medical Stomatological Academy in October 2006.

In 2006, full member of the LAS G. Duburs was awarded WIPO Gold Medal „Outstanding Inventor, 2006.”

Full Member of the LAS B. Rivža is corresponding member of the Russian Academy of Agricultural Sciences and foreign member of the Royal Swedish Academy of Agriculture and Forestry, and foreign member of the Lithuanian Academy of Sciences (elected March 2007).

Corresponding Member of the LAS A. Treimanis is foreign member of the Royal Swedish Academy of Engineering Sciences.

Since 2005, Foreign Member of the LAS J. Engelbrecht is President of the European Federation of National Academies of Sciences and Humanities (ALLEA).

### **Bilateral scientific co-operation**

The Latvian Academy of Sciences continually co-operates with the academies of sciences of other countries within the frames of bilateral agreements.

In November 2005, the LAS entered into a scientific collaboration agreement with the Montenegrin Academy of Sciences and Arts. In order to sign the agreement and get acquainted with functions and activities of the LAS, as well as with the state of science in Latvia, the LAS was visited by President of the Montenegrin Academy of Sciences and Arts Momir Djurovic and Secretary General Ranislav Bulatovic.

As of 1 January 2007, the LAS has signed 29 bilateral agreements on scientific co-operation with the following foreign scientific institutions: Austrian Academy of Sciences, Bulgarian Academy of Sciences, the British Academy, Academy of Sciences of the Czech Republic, European Academy of Sciences and Arts, French Acad-

emy of Sciences, Estonian Academy of Sciences, Israel Ministry of Science and Technology, Royal Society of Canada, Russian Academy of Sciences, Lithuanian Academy of Sciences, Royal Society of London, Montenegrin Academy of Sciences and Arts, Norwegian Academy of Science and Letters, Polish Academy of Sciences, Slovak Academy of Sciences, Slovenian Academy of Sciences, Academy of Finland, Hungarian Academy of Sciences, Royal Swedish Academy of Letters, History and Antiquities, National Science Council of the Republic of China (Taiwan), National Academy of Sciences of Ukraine, Israel Academy of Sciences and Humanities, Finnish Academy of Science and Letters, Italian National Academy of Sciences (*Accademia Nazionale dei Lincei*), Swiss Academy of Sciences, National Academy of Sciences of Belarus, the Berlin–Brandenburg Academy of Sciences, and Saxonian Academy of Sciences.

As a link between the LAS and the European Academy of Arts and Sciences, basing on the bilateral agreement of the both academies (1991), the European–Latvian Institute for Cultural and Scientific Exchange “Eurolat” has been established. After the LAS Senate approved the “Eurolat” Statute on 28 March 2006, it has been functioning as a part of the LAS structure. Reorganization of the former nongovernmental organization—European–Latvian Institute for Cultural and Scientific Exchange “Eurolat” (founded 1993)—thus has been performed.

On 31 October 2006, Felix Unger, President of the European Academy of Sciences and Arts (EASA) and foreign member of the LAS, visited Rīga to attend the joint Autumn Meeting of the Academies entitled “Society between Past and Future: Ageing and Succession of Generations” and to award the Europe Prizes of the EASA and the LAS. The recipient of the European (Felix) Prize was *Dr.phil.* Vilnis Zariņš, corresponding member of the LAS, who was awarded for his lifelong contribution to the philosophy in Latvia. The two supporting prizes went to *Dr.hist.* Renāte Blumberga and *Dr.soc.pol.* Andris Sprūds.

Within the frames of bilateral agreements, apart from the exchange of information, the LAS proceeded also with short-term scientific visits, since 23 of the agreements on scientific co-operation stipulate support for individual research visits. These visits are carried out according to the *Terms on short-term visits of Latvian scientists and receiving of foreign scientists’ visits under bilateral co-operation agreements*.

The following visits and events took place under the terms of bilateral agreements on scientific co-operation between the LAS and its partnering academies:

- On 28 January 2005, the LAS delegation led by its President Juris Ekmanis paid a visit to the Estonian Academy of Sciences, where a ceremony for inauguration of its President Richard Villems was held;

**Dynamics of scientific exchange under bilateral agreements**

Year	TO LATVIA		FROM LATVIA	
	Number of visits	Man-days	Number of visits	Man-days
1995	19	202	29	279
1996	20	267	43	471
1997	26	196	35	334
1998	36	166	39	457
1999	42	274	59	655
2000	33	260	68	715
2001	49	285	47	629
2002	40	355	65	602
2003	60	417	51	604
2004	64	455	47	408
2005	53	373	76	601
2006	65	485	60	573

- On 8 June 2005, the LAS was visited by a delegation of the National Science Council (NSC) of Taiwan, accompanied by Dr. Chang-Tze Hu, Head of the NSC Representative Office in Europe;
- On 5 December 2005, Rome, *Accademia Nazionale dei Lincei* a Latvian Academic Library (LAL) book and document exhibition entitled “La Via Dell’ Ambra” was opened. At the opening ceremony, the LAS was represented by its Vice President and Chair of the Division of Social Sciences and Humanities Tālavš Jundzis. The Latvian Academic Library delegation was led by the directress Venta Kocere;
- On February 10, a joint meeting of international relations officers of the LAS, Estonian Academy of Sciences, and the British Academy was held. The meeting was targeted at discussing current issues of inter-Academy collaboration;
- On 23 March 2006, Krakow, a new Agreement (March 2006 – March 2009) between the LAS and the British Academy was signed by the LAS President Juris Ekmanis and the Vice President of the British Academy Nicholas Mann;
- On 30 May 2006, the international relations specialist of the Hungarian Academy of Sciences (HAS) Katalin Kovacs paid a visit to the LAS. The LAS President Juris Ekmanis signed the new Protocol of the Agreement between the LAS and the HAS;

- On 19 September 2006, Tallinn, a presentation of the encyclopaedic edition of Johann Christoph Brotze, *Estonica* was held. Thereby, supported by the LAS, the joint project of the Latvian Academic Library and the Estonian publishing house “Estopol” on the edition of Estonia-devoted descriptions and drawings by the local Baltic historian J. C. Brotze was completed. On behalf of the Estonian part, the working group was lead by the LAS *Dr.h.c.* Raimo Pullat;
- On 22 September 2006, Rīga, an opening ceremony of the exhibition entitled “A Collection of Drawings and Descriptions of Livonia by Johann Christoph Brotze at the Latvian Academic Library” and presentation of the encyclopaedic edition of Johann Christoph Brotze *Estonica* was held;
- On 10 October 2006, an opening ceremony of the exhibition of graphic arts “From Far” by Lithuanian artist Migle Datkunaite, a chief editor-artist at the Lithuanian Academy of Sciences, took place at the LAS;
- On 16–17 November 2006, London, Full Member of the LAS Benedikts Kalnačs and advisor to president Anita Draveniece attended a seminar at the British Academy on current issues of collaboration between the academies of sciences of Central- and Eastern Europe;
- In the latter half of the year 2006, within the framework of co-operation between the LAS and the National Academy of Sciences of Belarus, a monograph *Западная Двина – Даугава. Река и время* [Western Dvina—Daugava. River and time] was published. Numerous Latvian and Belarussian scientists had contributed to preparation of the book, since the keystones of all chapters were worked out several decades ago. In the period 2004–2006, “updating” and scientific editing of the whole monograph was performed.

### **Extension of general and scientific contacts**

In May 2005, Paris, upon the initiative of the French Academy of Sciences, a joint meeting of the academies of sciences of the new European Union Member States was held. The LAS was represented by its President Juris Ekmanis and Vice President Andrejs Siliņš. Participants of the meeting drew up a common document, reflecting upon the conclusions made in the course of discussions.

On 11 May 2005, the LAS President Juris Ekmanis and Vice President Andrejs Siliņš paid a visit to the European Synchrotron Radiation Facility (ESRF) in Grenoble, in order to meet with its Chair of the Board W. G. Stirling and get acquainted with the work of the Centre and possible future co-operation with scientists from Latvia.

On 18 July 2005, the LAS was visited by a delegation of the German Aerospace Centre—Dr. Kai-Uwe Schrogl (Head of Corporate Development and External Rela-



tions) and Dr. Cornelia Riess (international coordinator). The future co-operation possibilities were discussed.

On 10–12 November 2005, Vice President of the LAS Andrejs Siliņš participated at the 2nd World Science Forum „Knowledge, Ethics and Responsibility” in Budapest, organized by the Hungarian Academy of Sciences in partnership with ICSU and UNESCO.

On 27–28 March 2006, the scientific secretary of the LAS Division of Agriculture and Forestry Sciences, Ieva Sloka, attended the EC conference “Giving More for Research in Europe” that was aimed at possible forms of research stimulation, emphasizing the role of foundations and increase in their assets, which are still insufficient in Europe.

On 28 March 2006, at the LAS Senate meeting, a report on science communication was delivered by Frank Burnet, Professor at the University of the West of England.

On 2–6 April 2006, Beijing, Corresponding Member of the LAS Aija Žileviča attended the IAMP 2nd General Assembly. In the frameworks of the event an opening ceremony of the book addressed to health care and science policy-makers of the world “Disease Control Priorities project” took place.

On 18–19 May 2006, Stockholm, Full Member of the LAS Imants Matīss attended the conference “Innovation Society,” which welcomed representatives from 14 innovative regions of the old and new EU Member Countries (Rīga region included), standing for municipalities and fields of science and industry.

On 21 August 2006, delegation of the Taiwan Foundation for Democracy (TFD) headed by its President Lin Wen-cheng paid a visit to the LAS. The guests arrived in Latvia in order to participate in the international conference “Development of Democracy: Experience in the Baltic and Taiwan” (August 21–22), organized by the LAS and the TFD. Alongside with the local speakers, the conference was addressed by the Taiwanese guests Lin Wen-cheng, Jang Chyi-lu, Soong Jenn-jaw, Hsiao Wen-sheng, as well as Detlef Henning (Germany), Heiko Paabo (Estonia), Algimantas Jankauskas, and Algirdas Gričius (Lithuania).

On 1 November 2006, Ms. Fiona Steiger, European Policy Manager of the EASAC was on a one-day visit to Latvia. A visit to the LAS, where the guest was introduced to the science organization in Latvia and to the functions of the LAS, took place.

On 7–10 November 2006, Corresponding Member of the LAS Aija Žilēviča attended, in observer status, a meeting of the Federation of the European Academies of Medicine (FEAM) in order to get acquainted with the functions of the organization and to evaluate the proposal of entering the Federation.

On 9–12 November 2006, Tel-Aviv, Corresponding Member of the LAS Ruvins Ferbers represented the Academy at the Israel Prime Minister's Conference, which was aimed at issues on export and international co-operation.

### **Welcome of foreign guests and officials**

In 2005, the LAS welcomed the EU's Energy Commissioner A. Piebalgs (March 18), Director General of the World Intellectual Property Organization Kamil Idris (April 6), the representatives of the Swiss Ministry of Foreign Affairs Agency for Development and Co-operation P. Monteil and H. Eisel (May 13), Ambassador of People's Republic of China Ji Yanchi, as well as delegation of PRC Institute of Foreign Affairs (May 27), Ambassador of the Netherlands to Latvia Robert Schuddeboom (May 31), new representative of the Taipei Mission in the Republic of Latvia M. Lee (October 12), Ambassador of Germany to Latvia Eberhard Schuppius (November 8) and, in the framework of a state visit, spouse of the President of Estonia Mrs. I. Rütitel.

In 2006, the LAS welcomed the European Defence Agency representatives Helena Boguslawska and chief executive Nick Witney (January 31), head of the Asia–Europe Foundation Paul R. Brouwer (February 1), leading adviser at the Department of Education and Science, Administration of the President of Ukraine, Aleksei Ivanchenko (November 16), and Head of the Ethics and Science Unit within the Research Directorate-General of the European Commission, Pēteris Zilgalvis (November 23).

### **Participation in international projects**

In 2006, the LAS was performing the duties of contractor or sub-contractor in several projects of the European Commission (EC):

- Collection of Pan-European Terminology Resources through Co-operation of Terminology Institutions (2004–2006), which was accomplished within the framework of the EC e-Content programme;
- Innovation Relay Centre Latvia—Promoter of Transnational Technology Transfer within EU IRC IST Network (2004–2006), which was carried out within the framework of the EC Programme for Innovation and SMEs;
- Erawatch baseload inventory;
- The Evolving Role of Academic Institutions in Economic Growth;
- Trend Chart: Innovation Policy in Europe.

## MAIN SCIENTIFIC INSTITUTIONS IN LATVIA

### **Ministry of Education and Science Republic of Latvia**

Vaiņņu iela 2, Rīga, LV 1050

Tel.: (371) 7226209. Fax: (371) 7223905. E-mail: izm@izm.gov.lv

<http://www.izm.gov.lv>

Minister Baiba RIVŽA, full mem. LAS, *Dr.habil.oec.*

*Department of Science, Technologies, and Innovations*

Directress of the Department Maija BUNDULE, *Dr.biol.*

Tel.: (371) 7047896. Fax: (371) 7243126, (371) 7047996. E-mail: maija.bundule@izm.gov.lv

Deputy Director, Head of the Projects Division Vilnis DIMZA, *Dr.habil.phys.*

Tel.: (371) 7047897. Fax: (371) 7243126, (371) 7047996. E-mail: vilnis.dimza@izm.gov.lv

Head of the Department of Science, Technologies, and Innovations

Gita RĒVALDE, *Dr.phys.*

Tel.: (371) 7047963. Fax: (371) 7243126, (371) 7047996. E-mail: gita.revalde@izm.gov.lv

### **Latvian Council of Science**

Akadēmijas laukums 1, Rīga, LV-1050, Latvia

Tel.: (371) 7228421. Fax: (371) 7223211. E-mail: lzp@lza.lv

<http://www.lzp.lv>

*Chairman* Andrejs SILIŅŠ, full mem. LAS, *Dr.habil.phys.*

Tel.: (371) 7211405. Fax: (371) 7821153. E-mail: silins@lza.lv

*Vice-Chairman* Juris JANSONS, full mem. LAS, *Dr. habil. sc. ing.*

Tel.: (371) 7551145, (371) 7223633. Fax: (371) 7920467, (371) 7821153. E-mail: jansons@pmi.lv

*Council Bureau:*

*Head of Bureau* Gaļina KAĻIŅINA

Tel.: (371) 7225164. Fax: (371) 7228421. E-mail: lzp@lza.lv

### **Latvian Union of Scientists**

Akadēmijas laukums 1–611a, Rīga, LV 1524, Latvia

Tel.: (371) 7212706; (371) 7225361. Fax: (371) 7821153. E-mail: lzs@lza.lv

<http://www.lvzs.lv>

*Chairman of the Council* Uldis GRĀVĪTIS, *Dr.paed.*

*Chairman of the Board* Aivars ĀBOLTIŅŠ, *Dr.sc.ing.*

## **UNIVERSITIES OF LATVIA**

### **University of Latvia**

Raiņa bulv. 19, Rīga, LV 1586, Latvia

Tel.: (371) 7034320. Fax: (371) 7034513. E-mail: lu@lu.lv

<http://www.lu.lv/>

*Rector* Ivars LĀCIS, full mem. LAS, *Dr.habil.phys.*

### **Rīga Technical University**

Kaļķu iela 1, Rīga, LV 1658, Latvia

Tel.: (371) 7089333. Fax: (371) 7820094. E-mail: rtu@adm.rtu.lv

<http://www.rtu.lv/>

*Rector* Ivars KNĒTS, full mem. LAS, *Dr.habil.sc.ing.*

### **Daugavpils University**

Vienības iela 13, Daugavpils, LV 5400, Latvia

Tel.: (371) 54 22180. Fax: (371) 54 24321. E-mail: dau@dau.lv

<http://www.dau.lv/>

*Rector* Zaiga IKERE, *Dr.habil.philol.*

### **Latvia University of Agriculture**

Lielā iela 2, Jelgava, LV 3001, Latvia

Tel.: (371) 3022584. Fax: (371) 3027238. E-mail: rektors@llu.lv

<http://www.llu.lv/>

*Rector* Juris SKUJĀNS, *Dr.sc.ing.*

### **Rīga Stradiņš University**

Dzirčiema iela 16, Rīga, LV 1007, Latvia

Tel.: (371) 7409230. Fax: (371) 7471815. E-mail: rsu@rsu.lv

<http://www.rsu.lv/>

*Rector* Jānis VĒTRA, *Dr.habil.med.*

## SCIENTIFIC INSTITUTES\*

### Institutes of Physical and Technical Sciences

#### **Institute of Electronics and Computer Science**

Dzērbenes iela 14, Rīga, LV 1006, Latvia

Tel.: (371) 7554500. Fax: (371) 7555337. E-mail: bilinskis@edi.lv

<http://www.edi.lv>

Director Ivars BILĪNSKIS, full mem. LAS, *Dr.habil.sc.comp.*

#### **Institute of Physical Energetics**

Aizkraukles iela 21, Rīga, LV 1006, Latvia

Tel.: (371) 7552011. Fax: (371) 7550839. E-mail: fei@edi.lv

<http://www.innovation.lv/fei>

Director and Chair of the Scientific Council

Juris EKMANIS, full mem. LAS, *Dr.habil.phys.*

#### **Institute of Solid State Physics, University of Latvia**

Ķengaraga iela 8, Rīga, LV 1063, Latvia

Tel.: (371) 7187816. Fax: (371) 7132778. E-mail: issp@cfi.lu.lv

<http://www.cfi.lu.lv>

Director Andris ŠTERNBERGS, full mem. LAS, *Dr.habil.phys.*

#### **Institute of Physics, University of Latvia**

Miera iela 32, Salaspils-1, LV 2169, Latvia

Tel.: (371) 7944700. Fax: (371) 7901214. E-mail: fizinst@sal.lv

<http://www.iph.sal.lv>

Director Jānis Ernests FREIBERGS, *Dr.phys.*

#### **Institute of Mathematics and Computer Science, University of Latvia**

Raiņa bulv. 29, Rīga, LV 1459, Latvia

Tel.: (371) 7224730. Fax: (371) 7820153. E-mail: imcs@mii.lu.lv

<http://www.lumii.lv/>

Director Rihards BALODIS-BOLUŽS, *Dr.sc.comp.*

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\* For more information see the websites of the institutes

### **Institute of Polymer Mechanics, University of Latvia**

Aizkraukles iela 23, Rīga, LV 1006, Latvia

Tel.: (371) 7551145. Fax: (371) 7820467. E-mail: polmech@pmi.lv

<http://www.pmi.lv>

Director Juris JANSONS, full mem. LAS, *Dr.habil.sc.ing.*

### **Institute of Astronomy, University of Latvia**

Raiņa bulv. 19, Rīga, LV 1586, Latvia

Tel./Fax: (371) 7034580. Fax: (371) 7034582. E-mail: astra@latnet.lv

<http://www.astr.lu.lv/>

Director Māris ĀBELE, cor.mem. LAS, *Dr.phys.*

### **Ventspils International Radioastronomy Centre**

Irbene, Anceš pagasts, Ventspils rajons, LV 3612, Latvia

Tel.: (371) 3682541. E-mail: irbene@e-apollo.lv

Inženieru iela 101, Ventspils, LV 3601, Latvia

Tel.: (371) 29230818. Fax: (371) 3628303. E-mail: virac@venta.lv; yzh@venta.lv

<http://www.virac.venta.lv>

Director Juris ŽAGARS, cor.mem. LAS, *Dr.habil.phys.*

## **Institutes of Chemical and Biological Sciences**

### **Latvian Institute of Organic Synthesis**

Aizkraukles iela 21, Rīga, LV 1006, Latvia

Tel.: (371) 7551822. Fax: (371) 7550338. E-mail: sinta@osi.lv

<http://www.osi.lv>

Director Ivars KALVIŅŠ, full mem. LAS, *Dr.habil.chem.*

### **Latvian State Institute of Wood Chemistry**

Dzērbenes iela 27, Rīga, LV 1006, Latvia

Tel.: (371) 7553063. Fax: (371) 7550635. E-mail: koks@edi.lv

<http://www.woodchem.lv>

Director Aivars ŽŪRIŅŠ, cor.mem. LAS, *Dr.sc.ing.*

**Institute of Inorganic Chemistry, Riga Technical University**

Miera iela 34, Salaspils, LV 2169, Latvia  
Tel.: (371) 7944711. Fax: (371) 7800779. E-mail: nki@nki.lv  
<http://www.nki.lv>

Director and Chair of the Scientific Council

Jānis GRABIS, full mem. LAS, *Dr.habil.sc.ing.*

**Biomedical Research and Study Centre**

Rātsupītes iela 1, Rīga, LV 1067, Latvia  
Tel.: (371) 7808003. Fax: (371) 7442407. E-mail: bmc@biomed.lu.lv  
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*Baiba Ādamsons, Alma Edžiņa, Jānis Kristapsons (supervisor),  
Sofja Negrejeva, Ieva Sloka, Ilga Tālberga, Ērika Tjūņina*

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