

Faculty of Science

Annual Activity Report 1998

Dean:	Prof. RNDr. Rostislav Brzobohatý, CSc.
Vice-deans:	Assoc. Prof. RNDr. Jan Celý, CSc. Prof. RNDr. Jiří Gaisler, DrSc. Prof. RNDr. Jaroslav Jonas, CSc.
Chairman of the Academic Senate:	Assoc. Prof. RNDr. Josef Janyška, CSc.
Secretary:	Ing. Hana Michlíčková

The Faculty of Science consists of various fields of scientific study (physics, chemistry, biology, and the earth sciences), mathematics and anthropology. These fields of study use different methodological principles and methods of research, and are also at different stages of development. This is then reflected in the forms of research and teaching programmes, while the formalisation of the newly acquired knowledge and its integration into a universal *weltanschauung* also differs greatly.

The Mgr. (master's) course of study includes thirteen fields of specialised studies and fourteen combined subjects for teacher training programmes. The number of Bc. (bachelor's) examinations passed last year was 176. There are four Bc. courses of study at the Faculty of Science that do not continue with a Mgr. course: applied physics in astrophysics, medical physics and measuring and testing; applied mathematics and geography; cellular and molecular diagnostics; and geology and museology.

Special attention is being paid to post-graduate doctoral studies. The Faculty is accredited to award doctoral degrees in 35 fields of study. The candidates are expected to present high quality dissertations and publish their articles in major foreign journals, and they are also asked to provide competent teaching assistance. Full-time doctoral students are awarded scholarships and preference is given to them getting a room at the Halls of Residence. In 1998, after the candidates successfully defended their dissertations and passed the doctoral examinations, 39 new doctoral degrees were granted, out of which five went to foreign students. It should be noted that the number of full-time doctoral students at the Faculty of Science is by far the highest at the University.

The Dean granted five awards for excellent results in study and research, publication, organisational activities and sports, and for increasing the prestige of the Faculty. Individual sections granted sixteen awards. 104 students were awarded a prize for exceptional study results (with an average mark of 1.0). The Rector's Prize given for best graduate student work was awarded to Mgr. David Vladimír Fetsch (France), in the field of analytical chemistry, and to Mgr. Lenka Zajíčková, in the field of plasma physics.

The teachers and scientists at the Faculty of Science were involved in 68 grant projects generated by the Grant Agency of the Czech Republic (GACR), 29 grants awarded by the Higher Education Development Fund, fourteen grants by the Ministry of Education, and fifteen from other sources, including the Academy of Sciences. There were 27 foreign grants, out of which thirteen came from the EU. Three applicants from the Faculty were successful in the competition organised by the Grant Agency of the Czech Republic for grants awarded to post-doctoral students (Post-Doc). The overall financial value of Czech grants was CZK 32.5 million, that of foreign grants approximately CZK 6.2 million.

Altogether eleven research proposals were presented at the Ministry of Education for its research projects.

The teachers and scientists published or participated in fifteen monographs last year, of which four appeared abroad. There were 230 scientific articles published in reviewed journals, of which 165 appeared abroad.

The Second Garden Party took place in the greenhouses of the Botanical Gardens, which was also an opening night of the exhibition of ceramic statues made by Brno and Kunštát potters, while a new book *Man and Ceramics* by František Gale, Jaroslav Malina and Josef Zeman was presented at the event. The opening speech was delivered by the new Rector of Masaryk University, Prof. Dr. Jiří Zlatuška, for whom this was the first opportunity to appear in public in his new role. The Garden Party is fast becoming a part of the cultural tradition. The Botanical Garden founded an association called "Friends of the Botanical Garden", whose aim it is to promote public outreach. Two specialised exhibitions took place on the premises of the Botanical Garden: a commercial exhibition of decorative bulb plants and succulents, and an exhibition of decorative parrots and other exotic birds.

The Ministry of Environment requested the Botanical Garden of the Faculty of Science to take custody of plants confiscated at customs and protected by the Washington Agreement.

The Small Centre, the bookshop operating on the premises of the Dean's Office, organised two commercial exhibitions of professional literature ("Natural & Technical Sciences 1998" and "Earth, Life & Physical Sciences 1998"). There is a gallery called "PF Gallery" in the building, too. It houses an exhibition entitled "Grass", exhibiting pictures by the renowned Moravian photographer L. D. Holan that were taken in the Botanical Garden.

On the premises of the Faculty of Science, the Central Library runs centralised lending services and provides a study hall.

New work space for the biological fields of study was acquired by the reconstruction of an attic in one of the Faculty's buildings.

The Faculty organised a gathering with Nobel Prize winning scientist J. D. Watson. In June, Prof. Zahradník, president of the Czech Academy of Sciences, delivered a lecture entitled "Research in the Czech Republic".

The departments of the Faculty of Science organised a number of conferences, seminars, and summer schools, often with international participation. The most important ones included: "Quaternary 98", "The 12th International Conference on the Younger Tertiary", "Brno GIS 1998 – Spatial Information Infrastructures for the 21st century", a winter school entitled "Geometry and Physics", "Progress Made in the Chemistry of Heterocycles", "International Symposium on the Use of New Microbiological Tests for Routine Measurements of Toxicity and in Biomonitoring", "Models and Reconstructions in Anthropology and Archaeology".

Of the most important events at the Faculty of Science in 1998, we would like to draw particular attention to the following:

There were six new professors appointed at the Faculty of Science in 1998:

- Ivan Holoubek in the field of the chemistry of the environment,
- Igor Kučera in biochemistry,
- Michal Lenc in general mathematics and mathematical physics,
- Pavel Prošek in physical geography,
- Antonín Přichystal in geology,
- Ivan Ohlídal quantum physics and optics.

Prof. Dr. Eduard Schmidt received the prize awarded by the Foundation Universitas Masarykiana, for his achievements in science as well as culture.

Prof. Dr. Lumír Sommer was awarded the Hanuš Medal of the Czech Chemical Society; the International Biographical Centre in Cambridge nominated him “Man of the Year”.

Prof. Dr. Josef Staněk was awarded the Masaryk University Silver Medal and the University of Göttingen Memorial Medal, for his life-long work and on the occasion of his birthday.

Prof. Dr. Ladislav Skula was awarded the Medal of the Mathematical Scientific Section of the JEMF (the Union of Czech Mathematicians and Physicists), for his work “The Development of the Theory of Numbers in the Czech Republic”.

Assoc. Prof. Dr. Vladimír Novotný became a member of the CNRS, France.

Comenius University in Bratislava awarded Prof. Dr. Jan Janča with the Gold Medal, for long-term co-operation and on the occasion of his birthday.

The Botanical Society of the Slovak Academy of Sciences awarded Assoc. Prof. Dr. Vladimír Řehořek the Holuby Medal, for his contributions to botany in Slovakia.

Prof. Ing. Bohuslav Veverka, Prof. Dr. James Carter (USA), Assoc. Prof. Ing. Horst Kremers (Germany), and Dr. Joel Z. Morrison (USA) were awarded Bronze Medals of the Faculty of Science for their achievements in research and long-term co-operation within the GIS conference.

The Bronze Medal of the Faculty of Science was also awarded to Assoc. Prof. Dr. Jaroslav Skácel, for excellent co-operation with the departments of geology and on the occasion of his birthday.