

Faculty of Science

Annual Activity Report 1999

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 provides courses in 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 formalization of newly acquired knowledge and its integration into a universal *weltanschauung* also differs widely.

The *Mgr.* (master's) courses of study include seven fields of specialized studies and 14 combined subjects for secondary-school teacher-training programmes.

The number of *Mgr.* examinations passed last year was 264, while the number of *Bc.* (Bachelor's) examinations reached 34.

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 paid to post-graduate doctoral study programmes. The Faculty is accredited to award doctor's degrees in 35 fields of study. At the moment, there are 427 doctoral students, of which 233 are regular students (nine of them foreign), and 194 students study part-time (four of these are foreign students). Candidates are expected to present high-quality dissertations and have to publish their articles in major foreign journals, and they are also asked to provide competent teaching assistance. Full-time doctoral students are provided with scholarships and have preferential status in the choice of candidates for room in halls of residence. In 1999, after candidates successfully defended their dissertations and passed doctoral examinations, forty-seven new doctor's degrees were granted, of which one went to a foreign student.

The Dean granted five awards for excellent results which increased the prestige of the Faculty in study and research, publication, organizational activities and sport. Individual sections granted 29 awards. Three students were awarded a prize for exceptional study results (with an average mark of 1.0). The Rector's Prize for the best *Mgr.* students was awarded to Zdeněk Dolníček for excellent study results and an original final-year thesis. The Rector's Prize for the best DSP students was awarded to Mgr. Roman Hilscher in the field of mathematical analysis, Mgr. Eva Fadrná in the field of organic chemistry, and Mgr. Roman Pantůček in the field of molecular and cellular biology.

Teachers and scientists of the Faculty of Science were involved in 71 grant projects initiated by the Grant Agency of the Czech Republic (GAČR), 27 grants awarded by the Higher Education Development Fund, ten grants from the Ministry of Education, and five from other sources including the

Academy of Sciences. There were 25 foreign grants, of which 19 came from the EU. Four applicants from the Faculty were successful in a competition organized 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 32.5 million crowns, that of foreign grants ca. 2.7 million. Eleven research projects proposed by the Ministry of Education are underway.

Teachers and scientists published 13 monographs last year, four of which appeared abroad. There were 272 scientific articles published in excerpted journals, of which 211 appeared abroad.

The Third Garden Party took place in the greenhouses of the Botanical Garden. This gala event launched a book entitled *Man and Glass in the Botanical Garden of the Faculty of Science of Masaryk University* and it was also the opening night of an exhibition of glass statues and artefacts made by Prof. Jaroslav Svoboda. The prestige of this event is attested to by the fact that it had the backing of the Mayor of Brno in addition to that of the Rector. The annual 'Garden Party' is fast becoming a cultural tradition.

The Botanical Garden of the MU Faculty of Science took part in the *Horti Komplex 99* exhibition, for which it received, from organizer Flora Olomouc, an honorary award for expanding the scientific scope of the exhibition.

The Botanical Garden founded an association called "Friends of the Botanical Garden", whose aim it is to promote co-operation with the public.

Three specialized exhibitions took place on the premises of the Botanical Garden: an exhibition entitled *Brno – Proflora – The World of Flowers, Beauty and Love*, a commercial exhibition of bulbs and succulents, and an exhibition of decorative parrots, European and other exotic birds.

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

A bookshop named "The Small Centre", operating on the premises of the Dean's Office, organized a commercial exhibition of foreign professional literature entitled *Earth, Life & Physical Sciences 1999*.

The building contains the "PF Gallery". Two exhibitions were installed there in 1999: one entitled *Vaňkovka*, exhibiting the works of Ing. Jan Lastomírský (of the Faculty of Visual Arts of the Brno Technical University), and a second exhibiting the drawings, photographs and objects carved in wood of Lukáš Richtera, a fifth-year student of inorganic chemistry at the Faculty of Science.

To commemorate the tenth anniversary of 17th November, the management of the MU Faculty of Science held a concert entitled *Concert on the Staircase*. The main protagonists of this event were third-year Janáček Musical Academy students in the field of musical acting (from Jana Janěková's studio). Songs by Suchý, Šlitř, Voskovec and Werich resounded through the premises of the Dean's Office.

On the premises of the Faculty of Science there is a Central Library, operating centralized lending services and featuring a study hall.

The MU Faculty of Science was visited by a number of important foreign guests, among them Dr. Dominique Sotteau (the Attaché for Science and Technology of the French Embassy in the Czech Republic), Nobel-Prize winner for chemistry Prof. Jean-Marie Lehn from Strasbourg University (who delivered a lecture at the International Chemometrical Conference *Chemometrics V*, organized by MU), Dr. Alfred Bader from the USA (an important industrialist and sponsor of artistic and chemical projects), and Prof. Serge Morand of the University of Perpignan (the director of CNRS research at that university).

The departments of the Faculty of Science held a number of conferences, seminars and summer schools, often with international participation. The most important included: *A Working Get-Together of the Mammals Group of the Stage 3 Project, Quaternary 99*, the *Borůvka Mathematical Symposium* (a scientific conference organized to commemorate the 100th anniversary of the birth of Prof. Otakar Borůvka), *Chemometrics V*, the *International Symposium of the Polar Section of the ČGS* (Czech Geological Society), and *Atmosphere 99*.

Other important events at the Faculty of Science included:

- Jaromír Vaňhara was appointed Professor of Biology;
- MU awarded the degrees of Honorary Doctor to Stanislav Vepřek (professor at the Institute of the Chemistry of Anorganic Materials in Munich) and to Dr. Luboš Perka (emeritus director of the Astronomical Institute of the Academy of Sciences of the Czech Republic);
- Prof. Dr. Jiří Gaisler was awarded the Prize of the City of Brno and the Rector's Prize for Outstanding Achievement.

Masaryk University conferred the following medals in 1999:

- Prof. Dr. František Kubíček received the Gold Medal for Lifetime Achievement, on the occasion of his birthday;
- Prof. Dr. Miloš Suk received the Silver Medal for Long-term Achievement in Teaching and Research, on the occasion of his birthday;
- Prof. Dr. Stanislav Rakusa-Suszczewski received the Silver Medal for the Support of Czech Antarctic Research Programmes, at the Festival of Travel and Cultural Integration in Zlín.

Further medals were awarded to the following Faculty members:

- Gold Medal of the Technical University in Brno to Prof. Dr. Jaroslav Jonas;
- Silver Medal of Palacký University in Olomouc to Prof. Dr. Vladimír Vetterla;
- Dr. Jiří Fajkus and the team of authors at the Laboratory for the Analysis of Biologically Significant Molecular Assemblies were awarded the 'Talent 98' Prize of the Minister of Education of the Czech Republic;
- Prof. Dr. Jan Novotný received the Award for Educational Excellence of the ÚV JČMF (Central Committee of the Union of Czech Mathematicians and Physicists).