The Biological Research Center (BRC) is an independent scientific organization for molecular and cellular biology in Hungary. The staff of 500 includes 239 scientists of international recognition.

BRC’s main mission is to carry out leading edge research towards understanding the role of genes and gene products in cell functions of microbes, plants and animals. Through this activity, BRC serves the local and regional community as an advanced intellectual center, which generates international reputation for Hungarian science, prosperity through the exploitation of the new scientific achievements, and employment for the highly trained personnel in the future biotechnological industry. Supported by a strong local university background and taking advantage of its unique geographical location, BRC is to become a regional core facility for international graduate and postgraduate education and extends its activity towards practical application in the Biotechnology Industrial Park of Szeged.

The BRC is a consortium of 5 Institutes, 4 of them are located in Szeged and one in Budapest. The centre is governed by the Board of Directors, headed by a General Director elected periodically from among the Directors of the individual Institutes. Scientific activity is organized in research teams dealing with various aspects of molecular biology directly related to the improvement of quality of life. The flexible management structure, the previously instituted diverse international and domestic co-operation schemes, and the devoted personnel saved the integrity of BRC during the turbulent period of socio-economical restructuring of Hungary that took place in the past 10 years.

An International Training Course, open for young scientists from all over the word, in particular from the Central/Eastern European countries (CEEC), has been running at BRC for 28 years. BRC scientists actively and successfully take part in the EU 5th Framework Programme. To facilitate 5th FP participation, BRC has been trusted with the role of serving as the domestic Liaison Office for the “Cell Factory” Key Action. BRC provides home for the UNESCO Environmental Biology Chair and the Department of Biotechnology of the University of Szeged.

The current position and future potential of the BRC to sustain its leading role in modern molecular and cellular biology in Hungary, and in the CEEC region, has been favourably judged by an European Molecular Biology Organization (EMBO) committee. The “first ever” independent evaluation carried out on a Central/Eastern European research establishment concluded in 1999:

“The BRC has, since its opening in 1971, emerged as a world center in its area of research. This is an astounding achievement under difficult circumstances. A group of outstanding directors...managed to generate and maintain a level of excellence that Hungary can be proud of. The EMBO committee was most impressed by the high standards of the Center. Out of the 46 groups, the Committee evaluated 16 groups as very good or excellent. These groups are world class. The most outstanding achievements were in the areas of plant biology and developmental genetics. This level of excellence is even more impressive considering
the level of funding the BRC. The BRC have an overall annual budget of about 9 million DM. A similar center of excellence in these areas biological research in countries of the European Union would certainly have a budget more than five-fold higher! This is a remarkable difference. The situation is indeed critical for the BRC and Hungarian research in general.”

Incidentally, the projects rated excellent by the EMBO evaluation almost exactly match the work packages of the Center of Excellence proposal. The topics include plant biotechnology, artificial chromosomes, developmental biology and biological energy production. In addition, a new national initiative, called Biotechnology2000, has been introduced, which specifically targets the development of the industrial sector relevant to BRC interests. This focused program will devote around 40 million Euros to the development of a competitive biotechnology industry in selected national priority areas.

BRC scientists take part in international research networking. There are several active participants in the various COST Actions and EUREKA projects, others take leading part in European Science Foundation, EMBO activities and the only CEEC member of the External Advisory Group to the 5th FP Cell Factory key action is a BRC scientist as well. Particularly strong institutional links have been developed with the ICGEB Centre in Trieste (Italy), the Max Planck Institut für Züchtungs- forséhung in Cologne (Germany), and the Institut des Sciences Vegetales, CNRS, Gif-sur-Yvette (France).

With the help of the Center of Excellence support from the EU, BRC will focus on further improving its scientific performance and extending its activity to education and practical application.

There is a need to concentrate the research capacity in fewer, well-selected areas of molecular and cell biology and to encourage intensive collaboration between the research units within the BRC and among European partners. The future programs and structural reorganization will be preferentially based on the input of the International Advisory Board.

The teaching activities of BRC scientists will remain a high priority, in particular at graduate and postgraduate level. Since International Training Course and the UNESCO Chair courses are attended by students from the neighboring countries, these activities have direct regional impact as well.

At the moment there is a gap between the strong basic research and the implementation of the results into industrial production. The Szeged region is exceptionally suited to be the centre of a strong biotechnology industry backed by a powerful scientific community. The municipality, including the Mayor of Szeged, confirmed their commitment for the establishment of a successful biotechnological industrial park. An array of SMEs can bridge this gap in the innovation process. The SMEs need legal and managerial support. BRC will contribute to the emergence of a successful biotechnology industry with its scientific input and by serving to educate appropriate personnel. The BRC will use its respected position to improve public perception towards biotechnology in the region and will continuously survey ethical and biosafety issues within the rising biotechnology industrial community.

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