

Dismembering disease into its basic molecules to achieve a better life quality for mankind*

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— Global Network for Molecular and Cell Biology

The UNESCO Molecular and Cell Biology Network (MCBN) exists since 1990 and has been created with the following considerations in mind.

Injurious environmental factors, chemical or physical in nature, malnutrition, uncontrolled population growth, degenerative diseases, such as cancer, immune-deficiencies and ageing, the spreading of viral, bacterial and protozoan infectious diseases, are associated with areas investigated by molecular and cell biology. While major advances have been made toward solving these problems in countries with highly developed technology, the Eastern European Countries (restructuring countries) have for example felt a less appreciable impact of these solutions.

Three years ago, MCBN launched a world-wide program in various areas of molecular and cell biology. The major goal of MCBN was and is to devise new initiatives that will provide opportunities to developing and Eastern European Countries to attack local and regional problems by utilising methods of molecular and cell biology. The Network is global in terms of West-East and North-South co-operation. It is also global in the open collaboration with other scientific organisations. Network laboratories are designated throughout the world to serve as focal points for interaction within countries and regions, as well as between other network laboratories and other institutions. The establishment of molecular and cell biology centres of excellence in various regions of the world provide a reservoir of talent and expertise to allow opportunities for the training of researchers from developing and restructuring countries. The MCBN centres initiate, stimulate, and facilitate the exchange of ideas, people, expertise and skills, and are encouraged to share facilities with other network member laboratories. MCBN seeks in particular to develop a strong base for research to be conducted in developing and Eastern European Countries.

* Na temat MCBN publikowaliśmy artykuł dyrektorów Polskiej Sieci Biologii Komórkowej i Molekularnej, Andrzeja B. Legockiego i Macieja Nałęcz, w zeszycie „Biotechnologii” 2(17) 92, 80 – 82.

Brain drain in the field of cell and molecular biology from Eastern European Countries is a dramatic economical, educational and security issue of the present time. Loss of experts can be expected to arise from their relocation to more rewarding occupations as well as from emigration: a local hiatus in the education of new generations of experts may be catastrophic and irreversible. Emigration of skilled experts in the field of molecular biology and their non-scrupulous exploitation may become a major issue in the criminal production of bacteriological weapons. Loss of experts in the field of molecular and cell biology has been realised to have a very negative fall out over the health and environment related economical problems: The solutions to the questions of cancer, arteriosclerosis, ageing, infectious diseases and how to improve the quality of life can only be to a large extent local: they deal with causative agents and they implement *ad hoc* answers.

The UNESCO Molecular and Cell Biology Network (MCBN) considers essential that scientific-technical information and training in the fields of cell and molecular biology be offered to students, scholars and laboratories in Eastern European Countries to ensure them a permanent improvement of their quality of life and one that is not entirely dependent on outside assistance.

The objective to reach is the development of networks of scientific institutes in Eastern European Countries and to integrate these networks with the one already existing the MCBN. Scopes of the project are: 1. To foster scientific contacts. 2. Propitiate access to laboratories and equipment. 3. Coordinate research on complementary subjects. 4. Encourage and support circulation of information. To reach these scopes grants, local workshops, fellowships, visits and the circulation of ideas through a newsletter have been implemented.

Centres have thus been created in Eastern Europe with the scope of developing co-operation through the local network system of institutes and establishing connections with scientifically more advanced countries. In a networked system, all investments, coming from local or foreign sources will become of more general utility and many of the problems of Eastern European Countries science may thus be resolved at a local level.

The first centre located in Poland serves as coordinating point for the just established network of collaborating institutes co-directed by Prof. Maciej Nałęcz (Warsaw) and Prof. Andrzej B. Legocki (Poznań). It is in continuous contact and receives input and exchange from the MCBN. For exchange of students and postdocs, during short visits, UNESCO-MCBN has provided a large number of fellowships to award in 1993. Fellowships for short duration visits abroad and small grants have been already awarded. The foundation and the support of this local co-ordinating centre and soon of more of them in different eastern countries, such as Russia, Latvia, Hungary, Bulgaria, Rumania, and Slovenia, has been also the object of an application to the European Community, interested in developing this type of activities. We hope to be able to create soon local conditions suitable to set back the

need for scientific emigration. These local networks will provide an immense scientific and human capital, which, if well channelled, will produce advantages for the Western countries and create a positive trend in the entire East European.

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