EMBEU Centre of Excellence

About IBB PAS

The Institute of Biochemistry and Biophysics of the Polish Academy of Sciences in Warsaw, was founded in 1957 under direction of late Professor Jozef Heller. This Institute was derived from the Department of Biochemistry PAN, which originated in 1954. The scientific interest of research teams gradually moved from classic biochemistry and physiological chemistry toward molecular biology. Today main lines of research are focused on: analysis of macromolecules conformations in solution; modelling of protein structure; antiviral and anticancerogenous nucleotide derivatives; regulatory protein kinases; polyprenoids function and structure; mutagenesis and repair of DNA, regulation of gene expression at DNA and RNA levels, plant transformation; mRNA sequencing; nucleo-mitochondrial interactions; genomic sequences analysis (wheat, plant viruses, yeasts). Genetics of bacteria and lower fungi is quite well developed; research on higher plant molecular biology is actively conducted. Gene mapping, sequencing, genetical engineering, expression systems are widely used by different teams. Vocation of the Institute stays with basic research, however, several results have medical and phytopatological applications. During last period the Institute is coming through an active transformation. The association with the Faculty of Biology of Warsaw University resulted in adhesion of the Department of Genetics of the University to our Institute. This new team will be offered laboratory in our main seat. The association resulted in redefinition of Institute vocation and emphasis was put on the programme of advanced education in molecular biology. In collaboration with the Faculty, during the next two years two dozen of students will get M.Sc. degrees in our laboratories. The programme is supported by internal granting system, eight students per year get M.Sc. fellowships. Parrellely, over 50 young researchers are working toward Ph.D. degree, supported from proper funds.
Centre of Excellence in Molecular Biotechnology (CEMB)

Project Description

Centre of Excellence in Molecular Biotechnology is a joint project of IBB PAS and European Commission focused on promotion of scientific exchange with European Union.

CEMB consists of ten interconnected work packages. In the frame of their activity 3 international conferences and 10 workshops will be organised, as well as individual scientific exchange with EU and Associated Countries will be supported (60 visitors coming to IBB PAS). It is planned to employ 20 researchers from EU and Associated Countries on professors’, post-docs’ and Ph.D. students' posts and also 30 visits of IBB scientists to the European laboratories will be funded.

CEMB is closely cooperating with The School of Molecular Biology at IBB PAS where 20 mini-symposiums will take place.

An additional aspect of CEMB activity is an increasing number of applications of research in the field of molecular biotechnology in Poland through close cooperation with Polish research and industrial institutions. All conferences, workshops and individual visits will be announced in order to provide Polish scientific community with maximum advantage of these events.

Centre is included in 5th Framework Programme of European Commission - Confirming the Role of Community Research. The funding of the Centre is previewed for 36 months.

CEMB has started its activity on the 1st December 2000, as the contract was signed on 9th November 2000. Organisation of the Centre is focused on the creation of a new quality of acting in order to continue its activity as the European funding is over.

Project Co-ordinator, Prof. Andrzej Rabczenko, Ph.D., D.Sc

Workpackages

1. Provision of European perspective and expertise in molecular biotechnology
2. Molecular modelling of protein structures and protein-protein interactions
3. New variants of recombinant proteins of biotechnological interest
4. Molecular studies on plant development
5. Plant-pathogen interactions
6. Plasmid genomics
7. Applied fungal genetics
8. Mitochondrial diseases
9. Hepatitis C virus (HCV) RNA helicase as a new target for antiviral therapy
10. DNA adducts, repair and carcinogenesis

Contact

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