

Pressemitteilung

Max-Delbrück-Centrum für Molekulare Medizin (MDC) Berlin-Buch

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Medical Genomics Laboratory in Berlin Officially Opened

In the presence of the Governing Mayor of Berlin, Klaus Wowereit, the Laboratory for Medical Genome Research was officially opened on Friday, June 30, 2006 on the Campus Berlin-Buch. Germany's Research Minister, Dr. Annette Schavan, had to cancel her visit due to a debate in the Bundestag, the German Parliament. The building was erected as a joint undertaking by the Max Delbrück Center for Molecular Medicine (MDC) Berlin-Buch and the Leibniz-Institut für Molekulare Pharmakologie (FMP). In doing so, the two institutions have created the prerequisite for bringing together different approaches in genome research, i.e. the systematic search for disease-related genes and the study of the function of genes and their products, the proteins. This research is crucial for the development of new treatment concepts. The building, which was designed by the Berlin architect Volker Staab and constructed at a cost of about 19 million euros, was financed with 56 per cent (10.6 million euros) of funds coming from the European Funds for Regional Development (EFRD). The remaining circa 8.4 million euros were provided by the Federal Government of Germany with a grant of 6.5 million euros and the State of Berlin with 1.9 million euros. The building is named after the Russian geneticist Nikolai Wladimirovich Timoféeff-Ressovsky*, who worked at the Kaiser Wilhelm Institute for Brain Research in Berlin-Buch from 1930 to 1945. He is considered to be one of the founders of molecular genetics along with Max Delbrück, after whom the MDC was named. Prior to the symbolic handing over of the keys to the Scientific Directors of MDC and FMP, the sculpture of Timoféeff-Ressovsky, created by the Berlin sculptor Stefan Kaehne in 2006, was unveiled in front of the building. During the festivities, the MDC and the FMP also celebrated the 75th anniversary of medical-biological research in Berlin-Buch. The Kaiser Wilhelm Institute in Berlin-Buch was officially opened on June 2, 1931 in the presence of Max Planck.

Prof. Walter Birchmeier, the MDC's Scientific Director, honoured the huge contributions of the Federal Government, the Land of Berlin, and the European Union made to for the Berlin-Buch Campus. "They have invested into this Campus about 237 Million Euros", he pointed out. "This has made it possible to transform this Campus into a highly modern, internationally competitive research place, as we can see today with the new Laboratory for Medical Genome Research".

"The Campus has an excellent basis to combine the unravelling of the origin of disease with the development of new therapeutical concepts", Prof. Walter Rosenthal, Director of FMP pointed out. Contributing to this concept is the new laboratory building. He thanked the architects from the office (Architekturbüro) Volker Staab and continued: "The Timoféeff-Ressovsky Building is perhaps the most attractive one on the campus - the crown of all of the construction that has been going on during the past 15 years and which has made this campus what it is today: a modern, interational research campus with an excellent infrastructure."

The keynote speeches were held by the neurobiologist Prof. Thomas Jentsch, director of the Institute for Molecular Neuropathobiology Hamburg (HMNH), who was recently appointed to a W3 professorship at Charité - Universitätsmedizin Berlin in cooperation with the FMP, and the bioinformatician Prof. Nikolaus Rajewsky, formerly of New York University (New York, USA), likewise appointed to a W3 professorship at MDC. Both will have their laboratories in the new building.

Prof. Jentsch, whose research group is equally funded by the FMP and the MDC, spoke on "Function explained by dysfunction: Diseases provide insight into the role of ion transport". His research in this area has contributed to our understanding as to how different diseases are caused and how they develop. Prof. Rajewsky gave a lecture on "New treatment options? Tiny human genes regulate thousands of target genes". He developed a high throughput method identifying the sites in the genome to which very small RNA molecules bind and ultimately regulate the production of proteins.

The four-story genomics research center has approximately 3,200 m² of floor space. After two years of construction, it was completed this year. Located within the building is the Gene Mapping Center, which the MDC founded several years ago within the framework of the German Human Genome Project with funds of the German Research Ministry. In the special laboratory, which has state-of-the-art technical equipment, scientists identify genes that are involved in the development of diseases by means of high-throughput procedures. This research is integrated into the National Genome Research Network 2 (NGFN2). It is closely connected with MDC's proteome research and is of great significance for linking clinical and basic research.

Also located within the new building is the "Protein Structure Factory" of the German Human Genome Project (DHGP) and of Berlin structural biologists, in which the MDC and the FMP are also engaged. The project is aimed at analyzing the spatial structure of proteins using high-throughput methods. In addition, the FMP runs its "Academic Screening Unit" in the building. Here, in a high throughput procedure, small molecules are identified which bind to proteins and have a biological effect. These small molecules both represent important tools for research and serve as prototypes for new types of drugs as well. The work of the "Screening Unit" is supplemented by the FMP research group "Medical Chemistry".

Furthermore, the MDC and Charité are planning to create an "Experimental and Clinical Research Center" (ECRC) on Campus Berlin-Buch. The aim of all of these research activities is to speed the process of turning scientific insights into medical treatments for patients.

The MDC was founded in Berlin-Buch in 1992. Since that time, it has developed a future-oriented concept that enables research on an array of clinical disorders such as cancer, cardiovascular diseases, and diseases of the brain within the framework of molecular medicine. The MDC's aim is to understand the origins of these complex diseases and their progression by studying the relevant genes and gene products. MDC scientists work closely with oncologists and cardiologists of the nearby research hospitals of the Charité within the Helios Klinikum Berlin. MDC is funded by the Federal Government of Germany (90 per cent) and by the State of Berlin (10 per cent) and is a member of the Helmholtz Association.

The FMP, also founded in 1992, is equally funded by the State of Berlin (50 per cent) and the Federal Government of Germany (50 per cent). In late 2000, the FMP moved from Berlin-Friedrichsfelde to Campus Berlin-Buch. The FMP's core activity is basic research for drug development. Its primary aim is to elucidate cellular regulation processes and to show how they can be influenced pharmacologically at the molecular level. To achieve this purpose, the institute researches the structure, function, and interactions of proteins. One thematic priority is the identification of small molecules that bind to proteins and influence their function. These molecules could potentially serve as new substances for drugs or as tools for research. The close linkage of biology and chemistry is characteristic for the research of the institute. The FMP is a member of the Leibniz Association.

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The new Laboratory for Medical Genome Research in Berlin, Germany
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