

## THE MUNICIPAL MEDICAL RESEARCH INSTITUTE\*

The Municipal Medical Research Institute (Catalan acronym: IMIM) is a public body dedicated to scientific research in the field of biomedicine and the health sciences. The Institute also works in the preparation and professional training of research personnel in these areas. Since 1991, it has been recognized as a higher school of learning by the Consejo de Universidades. As of July 2000, it was registered with the Universitat Pompeu Fabra by legal decree of the Generalitat of Catalonia.

### Historical antecedents

The IMIM is currently dependent on the Institut Municipal d'Assistència Sanitària (IMAS, Municipal Institute of Medical Assistance), charged with providing support for, promoting, coordinating, and managing its own intramural research and that of the Hospital del Mar, the Hospital de l'Esperança, the Centre Geriàtric, and the Centre Psiquiàtric. The IMIM was created by the Barcelona City Council in 1947 thanks to the support of Dr L. García Tornel, then Lieutenant-Mayor for Health. The moving force behind the Institute was Dr Trias de Bes who, as director of the Hospital Municipal d'Infecciosos (now the Hospital Universitari del Mar), charged Drs Jordi Gras i Riera and Amadeo Foz Tena with its creation. Thus, in 1948, the IMIM was solemnly inaugurated by Sir Alexander Fleming. In the 1950s and 1960s, the IMIM played the role of the main biomedical research centre in Barcelona where the doctoral dissertation in experimental projects could be presented. At that time, the only two lines of research at the IMIM were biochemistry (which would later become immunology) under the supervision of Dr Gras, the centre's director until his retirement in 1984, and also bacteriology, headed by Dr Foz, a member of the World Health Organization's team of experts on brucellosis in 1958. Dr Foz also played a notable role at the Institute in his studies on the outbreak of cholera in Barcelona in 1971.

The political transition to a democratic system of government, begun in Spain in 1975, also had its translation within the health system, and in 1986 culminated in the enactment of the General Law on Health Measures. During those years, the city councils undertook numerous health initiatives such as those oriented toward transforming medical

assistance services. At the end of 1984, the organization of the IMAS into an autonomous municipal health assistance body aided in the opening of a specific research policy in the city hospitals. This process allowed a reorientation of the activities of the old IMIM by way of the integration of the pharmacology group of the Hospital del Mar (dedicated to research on substances of abuse and dependence), the incorporation of a new group of computer-assisted medicine from the Universitat Autònoma de Barcelona, and the establishment of a specific budget. The additional incorporation, in the course of 1987 and 1988, of other research groups in the areas of cellular biology and of epidemiology and public health completed the structural base of the present Institute.

Since 1985, the IMIM has been accredited by the International Olympic Committee to control doping. It is also the World Health Organization's collaborating centre (European Regional Office) in the area of substances of abuse and dependence. In 1992, the Institute moved into its present building and carried out the doping control tests for the Paralympics and the Olympics organized in Barcelona. One of the most important scientific events in which the IMIM played a participatory role was the discovery, in 1987, of the link between the soybeans unloaded from ships docked at Barcelona Harbour and acute asthma epidemics (sometimes mortal), a series of outbreaks which were later shown to have been occurring since 1981.

### Organization of research, human resources and economic resources

During 1995, ten years into this second phase of operations, a new reorganization was undertaken consisting in the organization of multidisciplinary research units and groups, a good part of them of mixed character, with clinical researchers from the hospitals. Currently, and as a consequence of an external evaluation carried out by ANEP in 1988, the IMIM was structured into 11 research units and groups, 7 of which are accredited by the CIRIT as quality research groups. Thus, the institution is also accredited by the Ministerio de Sanidad y Consumo as a Mixed Health Research Unit, a qualification awarded to only three centres in all of Catalonia.

At present, 234 people are employed at the intramural IMIM. Of these, 128 are contracted personnel, 57 are permanent staff, and 71 posts are occupied by temp workers. Among these 128 contracted workers, 58 are scientific re-

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searchers and the remainder are comprised of technical support people and those working in administration and services. The 106 remaining workers are research grant holders (higher, middle-level, and post-graduate technicians), 66 of whom are at a predoctoral stage.

As to economic resources, in relation to the 1999 exercise, the expense budget was 1,095.8 million pesetas, of which 54.1% corresponds to personnel costs and 32.1% to the acquisition of goods and services. Another 46% of these costs were financed by way of an IMAS contribution. This financing came principally from the Servei Català de Salut (Generalitat de Catalunya) as a consequence of the agreement for provisioning health service assistance to IMAS. The remaining 54% of the budget was supported through aid resources and final subsidies, the contracts and research agreements with private and public institutions as well as the resources from specialized services, as is the case for the doping control tests. In total, in 1999, the IMIM generated its own resources to the amount of 752 million pesetas.

### **Lines of research, ongoing research projects, and scientific production**

Currently, research is carried out according to the arrangement of 126 externally financed projects (including research grants and R&D contracts). Of these projects, it is important to point out that 7 are financed by the EU and coordinated by the IMIM while an additional 12 projects are financed by the EU with the IMIM as active participating partner. Aside from the projects financed by the EU, IMIM scientists have at their disposal competitive assistance from such public organizations as the CIRIT, the Health Research Fund, the National R&D Plan, (R+D+R), and those of private bodies such as the Fundació Ramon Areces, the Fundació Marató de TV3, and the Fundació La Caixa, among others. Research is also carried out on the basis of aid from the North American NIH and through contracts and agreements signed with health firms (mainly pharmaceutical) and with different bodies of the local, autonomous, or central governments.

The Research Units and Groups concentrate their investigations in the following areas: basic research, clinical and epidemiological cancer research, clinical and epidemiological research in pharmaceuticals and substances of abuse and dependence, research on the effectiveness of the health services, research in cardiovascular diseases, research in respiratory medicine and environmental health, and research in computer-assisted biomedicine.

As to scientific production, more than 300 documents are published annually. In 1999, 152 of these documents constituted original research and revisions, 105 of which appeared in international SCI and SSCI indexed journals. The remainder are other types of working documents, books and chapters of books, and academic works. Among these, 9 doctoral dissertations (36 since 1996) are highly notable works. In regard to the research done in the health field, this scientific production situates the IMIM in third position in

Catalonia and in Spain in biomedical investigations, taking into account the production/research personnel fraction.

### **The present and future of the IMIM: its relations with the Universitat Pompeu Fabra and the Barcelona Biomedical Research Park project**

While it is a university institute, the present IMIM cannot be understood outside of its direct relationship to the new studies in the health sciences and the life of the Universitat Pompeu Fabra (UPF). These studies were begun on premises provided by the UPF itself. An academic development that has involved the creation of the UPF Department of Experimental and Health Sciences, with the incorporation of the new highly qualified teaching staff made up of research groups in the same area. Thus, not only are common and scientific-technical services shared, but the scientific environment itself grows annually with expert university professors in the fields of intracellular tagging, genomic regulation, and evolutionary biology, among others. Among the UPF's academic initiatives with direct IMIM participation is the very notable doctoral program in the health sciences and the life sciences. The program is designed to provide training for research personnel and is characterized by its multidisciplinary nature. Three fields of specialization are provided in the areas of basic research, clinical research, and public health research respectively. An important recent initiative on the part of scientists from both institutions is the creation of a Code of Good Scientific Practices, a set of «game rules» freely and voluntarily accepted by professors and researchers not only to maintain the integrity of the research they carry out, but also to guarantee its maximum excellence and quality. Further information is available from [www.imim.es](http://www.imim.es) or [www.upf.es/biomed](http://www.upf.es/biomed).

Finally, it should be mentioned that the IMIM is one of the scientific institutions that make up part of the future Barcelona Biomedical Research Park (Catalan acronym: PRBB). This project is a joint undertaking of the City Council of Barcelona, the Generalitat of Catalonia, through the University Departments (*conselleries*) for Research and Information Society, and the Department of Health and Social Security, the UPF, and the IMAS. The project is being proposed as a city scientific park designed to reinforce the role of Barcelona and Catalonia in the fields of research, teaching and health care excellence. The PRBB will concentrate resources in areas of knowledge emerging from the fields of human biology and of medicine and, very particularly, will make possible genomic and biological developmental research, cancer research, environmental health and aging, as well as the active investigative projects in pharmacological and biotechnological fields.

The PRBB will be housed in a new building, located beside the Hospital del Mar. It will have a building area of 28,000 square metres. This structure will house, among other centres, the IMIM itself, the fully completed Department of Experimental and Health Sciences of the UPF, and

the future Centre of Genomic Regulation (a new research centre promoted by the Department of Universities, Research and Information Society of the Generalitat in collaboration with the UPF). The occasion will permit the opening of a joint company of all the partners to efficiently provide

the necessary general and technical-scientific services for a project of this sort. What is equally, if not more important, it will be an unprecedented opportunity to initiate a cooperative scientific project using resources from different institutions.