The Swiss Institute of Allergy and Asthma Research

Introduction
Recently the Swiss Institute of Allergy and Asthma Research, located in Davos, Switzerland, was officially opened. On this occasion a scientific symposium on allergy and asthma was held. In this issue of International Archives of Allergy and Applied Immunology, some key lectures are published.

At the Swiss Institute of Allergy and Asthma Research, which was restructured from the former Medical Department of the Swiss Research Institute Davos, an international team of scientists and clinicians is studying the pathophysiological mechanisms leading to different types of allergy and asthma. In collaboration with the clinics in Davos, the members of the new institute are focusing their research activities primarily on the clinical consequences of the regulation of IgE antibody formation (J. Pène) and of inflammatory processes (P.L.B. Bruijnzeel). One group is working on the cellular mechanisms and interactions in atopic skin diseases (C.A.F.M. Bruijnzeel and G.C. Mudde), and another group will focus on the molecular basis of allergic diseases (M. Suter). Some of these topics are presented in more detail.

Although allergic diseases are manifested in different organs and are mediated by different types of cells, the common aetiology of these diseases appears to be a dysregulation of T lymphocytes and their secreted products. Therefore, the understanding of the activation of T cells, their subtypes or phenotypes, and their role in development and regulation of other cells might relate to a common origin of most immunological disorders, including allergies and asthma. The immune defence is a system in which cells of both lymphoid and myeloid origin interact with each other. The two systems are connected via antibodies often complexed with antigen and Fc receptors expressed on different cells and linked through the action of cytokines and other mediators. Thus, it is pointless to ask the question whether certain types of cells in the body are good or bad, as immune cells are part of a network system in which all members are regulated by others.

The major goal at the Swiss Institute of Allergy and Asthma Research is to initiate comprehensive studies to better understand the immune network and its regulation. The studies involve clinicians, immunologists, pharmacologists, and biologists, and the collaborative projects will allow optimal use of the unique clinical potential available in Davos. The collaboration will provide the basis for a stimulating environment for young scientists and medical doctors; the institute also offers possibilities for temporary stays of established scientists.

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History
Davos was Europe’s first center for tuberculosis treatment. The mountain climate with clean air and plenty of sunshine appeared to provide the main ingredients to cure tuberculosis before effective therapeutic treatments became available. This setting inspired Thomas Mann to write his classical novel ‘The Magic Mountain’. The novel provides yet another view of this historic time in Davos seen through the eyes of a poet.

Today, Davos attracts an increasing number of patients suffering from asthma, atopic skin diseases, and other allergic diseases. Currently more than 14,000 patients from Switzerland, Germany, the Netherlands, and other countries are treated annually.

A tuberculosis research institute was already established in 1905 by the late Prof. Karl Turban with the help of the Davoser Ärzteverein. In 1907 Prof. Carl Dorno founded the Physical-Meteorological Observatory. The two research stations were joined in 1922, and the foundation was given the name Swiss Re-

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search Institute for High Altitude Climate and Tuberculosis.

For 12 years until 1933 research in high-altitude physiology was performed by Prof. A. Loewy. From 1934 to 1937 Prof. E. Roulet studied the chemistry of Mycobacterium tuberculosis. The main research interest of his successor, Prof. W. Berblinger (1938–1954), was the pathological anatomy of tuberculosis. At around this time antibiotics were used for tuberculosis treatment, and Prof. W.A. Vischer (1954–1960) addressed problems associated with antibiotic-resistant tuberculosis bacilli.

With the decline of tuberculosis, the aim of the research was directed towards clinical immunology, and the institute was renamed the Medical Department of the Swiss Research Institute for High Altitude C. Climate and Medicine. The institute was headed by Prof. E. Sorkin (1961–1985) and later by Prof. H. Besedovsky (1985–1987) who both investigated immuno-neuroendocrine interactions. Due to the expanded need of the local clinicians for collaborative research and considering the particular clinical situation and local circumstances of Davos

the Foundation decided to direct future research to problems directly associated with allergy and asthma. The Swiss Institute of Allergy and Asthma Research started its activities in 1988 and its official opening was in June 1989.

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