INSTITUTES OF THE
ROYAL NETHERLANDS ACADEMY
OF ARTS AND SCIENCES
PROGRESS REPORT 1976

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On January 1st, 1977, the Netherlands Institute for Brain Research will start its work as an institute of the Royal Netherlands Academy of Arts and Sciences. Its history, however, goes back more than 70 years, during which time its formal status has changed twice.

History of the Institute

In 1901 the anatomist Wilhelm His proposed to the International Association of Academies, to coordinate research on the nervous system of an international level. This led to the installation of the International Committee for Brain Research in 1904 which intended "to bring about a system of institutions over the civilized world, dedicated to the structure and function of the central organ...". The ambition to found a so-called Central Institute succeeded first in the Netherlands.

With reference to a report by C. Winkler and L. Bolk, the Royal Netherlands Academy of Sciences applied to the Dutch Government in 1905 for permission to found an institute for brain research in Amsterdam. The government consented and on June 8th, 1909 the Central Institute for Brain Research, that housed in a wing of the then newly erected Department of Anatomy and Embryology of the Municipal University of Amsterdam was officially opened. This institute of the Academy was the first research institute in the Netherlands. The first director was Dr. C. U. Ariëns Kappers who became world-famous as a comparative neuroanatomist. Dr. Ariëns Kappers emphasized the importance of developmental studies for the elucidation of the normal and pathological structure and function of the nervous system, an idea that has returned into the central theme of the present institute. A few years later he was appointed professor of neuroanatomy at the University of Amsterdam. In the meantime it had become clear that members of the institute would never be qualified for a pension, therefore, in 1923 the formal status of the institute was changed into one of a governmental institute. The institute itself, however, remained under the supervision of the Academy. After his death, in 1946, Kappers was succeeded by Professor B. Brouwer who previously had held the chair of neurology at the University of Amsterdam. Brouwer was primarily interested in neuropathology. During the management of Prof. Brouwer Dr. J. Drooger Fortuyn, later professor of neurology at the University of Groningen, introduced electrophysiology at the institute.

After the untimely death of Brouwer in 1949, the Dutch government agreed that the institute should be reorganized and extended. Thus it became possible to found new divisions, enabling the institute to perform multidisciplinary research in the broad field of neurosciences, which was in accordance with its original aim.

In 1952, Professor S. T. Bok, who had previously held the chair of histology at the University of Leyden, was appointed director. His merit had been to stimulate multidisciplinary research at the institute on a large scale. He was one of the first researchers to earn fame in the quantitative analysis of the brain, especially of the cerebral cortex. After his retirement in 1962 he was succeeded by J. Ariëns Kappers,
previously professor of anatomy at the University of Groningen, who was simultaneously appointed professor of neuroanatomy at the University of Amsterdam. Dr. Kappers was especially interested in circumventricular organs; under his direction the investigation of the structure and function of the epiphysis cerebri acquired an important place in the institute.

In 1964, the institute moved to a provisional, but much larger building with some additional buildings having since been built.

Recent developments

When Professor Kappers decided to retire, Dr. H. G. J. M. Kuijpers, professor of anatomy of the Erasmus University in Rotterdam, was nominated by the Academy to succeed him as director of the institute. On the retirement date (August 1st., 1975) the succession had not been effected, however, since consultations with the government were still in progress regarding new premises, as well as guarantees for the budget and research facilities for Prof. Kuijpers' research group. At the request of the government, Prof. Kappers remained on as temporary director. On August 15th, 1975, the members of the advisory board were informed unexpectedly that the government had decided to close down the institute for economic reasons. This decision (taken without having consulted any scientific body) was announced to the members of the institute on August 27th. A stream of national and international protests against this measure, along with wide support for the efforts of the institute staff, persuaded the Dutch parliament to request the government to reconsider its decision.

On November 1st 1975, Dr. D. F. Swaab, member of the staff of the institute, was appointed as acting director. After various discussions with the government and members of the Dutch parliament, the latter decided unanimously to reconsider the whole closure issue. An independent committee – consisting of Prof. Dr. H. B. G. Casimir (chairman), Prof. Dr. D. de Wied and Prof. Dr. J. Joosse – was appointed to advise the government in this respect. The report of this committee was offered to Dr. G. Klein of the ministry of Sciences and Education, in February 1976. The committee proposed to condense the research of the institute around one central theme. The reorganization is currently being implemented by a committee (RECON) which consists of: two officials from the Ministry of Sciences and Education (Drs. J. A. M. Goemans and F. G. E. van Haersma Buma), the acting director of the institute, Drs. W. L. Bakhuys on behalf of the unions, and Prof. D. de Wied and Prof. J. Joosse as scientific advisors. The formal status of the “Netherlands Institute for Brain Research” will – at least for the next five years – be that of an institute of the Royal Academy again.

Research

In the last few years research was centered more and more in a relatively small number of projects in which investigators from different disciplines (biologists, physicists, biochemists, M.D.’s etc.) were collaborating. In agreement with the ambition of the scientific staff, the “Casimir committee” proposed to unify the diverse projects into one central theme, “maturation and adaptation of the nervous system”. This central theme is to be built around the first five groups mentioned below. The current reorganization has important consequences both, in the personal sphere and for the research projects. Several groups at the institute can largely continue their original research aims while others have had to initiate a program within the central theme. Various other groups however, have had to complete their research projects or to change the subject. The present progress report will reflect all the characteristics of this transitional period.

D. F. Swaab
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