Introduction

This issue of European Neurology is devoted to the delta-sleep-inducing peptide, a sleep promoting factor discovered by *Marcel Monnier* and identified and synthesized by *G. Schoenenberger*, head of the Research Laboratories of the Department of Surgery of the University of Basel. This fascicule contains the majority of the contributions presented at the symposium in honour of Prof. *Marcel Monnier*, former head of the Department of Physiology of the University of Basel. The organizers are much indebted to Dr. h.c. *Thomas Karger*, publisher of European Neurology, who made it possible to devote an entire fascicule of this journal to DSIP.

In 1963/1964, *Marcel Monnier* expressed his hypothesis that sleep cannot be satisfactorily explained by bioelectrical signals. The complicated architecture of natural sleep and the whole circadian rhythm needed a biochemical basis through neurotransmitters or neuromodulators. At that time the scientific world was overwhelmed by the discoveries of *W.R. Hess* and of *Moruzzi and Magoun*. A natural sleep behavior could be provoked by electrical stimulation of interlaminar structures of the thalamus, whereas the ascending reticular formation of the brain stem activated and desynchronized the cortex, hereby inducing wakefulness. Ever since 1963, *Monnier* and his collaborators and a few research laboratories throughout the world have been working on the hypothesis of a humoral sleep peptide. When it was isolated, it was called delta-sleep-inducing factor, because in the first experimental animal, the rabbit, it induced mainly delta sleep. Later, it was shown that it increased the particular sleep pattern in different animal species, the REM sleep was well as the slow sleep. *Schoenenberger* was able to show that DSIP is a unique substance, not dependent on the species, that it was safe and that in animals it had complex effects not only on the sleep pattern, but also on the behavior during the wakeful state.

Its usefulness in patients with sleep disturbances has been proven by a number of clinicians. Still, DSIP has not yet an established place in the treatment and is not yet commercially available. A DSIP preparation used for animal and human studies is available through the courtesy of Hoffmann-La Roche Ltd.

In the meantime a number of other sleep promoting factors have been described, none of which has been as well studied as DSIP. We hope that this fascicule will contribute to the knowledge of humoral sleep factors and that it will stimulate further research.

H.E. *Kaeser*, Basel