

In vitro studies about the effects of homeopathic dilutions on the motility of rat intestine

Prof. Dr. H. Martens
Department of Veterinary Physiology
Freie Universität Berlin
Oertzenweg 19b – 14163 Berlin

The motility of smooth muscle cells of the intestine occurs primarily by autonomic regulation, but may be influenced by a variety of transmitters and hormones. It is well known since many decades that the parasympathetic input causes an increase of motility by releasing acetylcholine (ACh). The mechanisms of release of ACh and the interaction of this transmitter with corresponding receptors have been studied many times and are currently studied including possible effects on the contraction of smooth muscle in the intestine. This type of studies requires standardized experimental conditions, which are given with the usual *in vitro* preparations.

The effects of homeopathic preparations are generally studied *in vivo*. For this reason a recent publication about the effects of homeopathic dilutions of Belladonna (D 60, D 100) are quite important, because this study used an *in vitro* preparation of rat small intestine (Schmidt et al., 2004). These experiments should be repeated in order to confirm these results in an independent study in a co-operation between the Department of Veterinary Physiology and the group of Schmidt and co-workers in Leipzig.

The motility of the small intestine of rats will be induced by a variety of known transmitters (acetylcholine, substance P, histamine). This classical experimental design will be repeated in the presence of homeopathic dilutions of Belladonna or the vehicle. These studies will be performed in a co-operation with Prof. Dr. K. Nieber, Leipzig.

There is a common interest to confirm the results of the mentioned *in vitro* study and the planned co-operation should make it much easier.