# Chronopharmacology

# Chronopharmacology: The Right Formulation At The Right Time

How quickly or effectively a biological substance is absorbed and produces an effect after being taken largely depends on the activity of the digestive tract. If a substance is to produce an effect in a target organ at a certain time, it needs to reach the liver on time. Yet this passage through the digestive tract does not always take place at the same rate. For instances, the blood supply to the stomach and intestines is rich in the morning but relatively low around lunchtime. This aspect is taken into consideration in chronobiological formulations, which are given in the morning, at bedtime, or are provided with a kind of time lock.This new medical understanding may help to avoid doing the right thing at the wrong time. Which substance has its maximum effect in the morning? Which substance is best absorbed at bedtime? Which substances are compatible with each other? Which of them must be taken together to be at all effective? Which biological substances may block the effect of others? Chronotherapy supports the body exactly at a time when a maximum effect can be achieved. This is how we increase efficacy. This is how we reduce undesirable side effects.For many substances chronobiology already knows the most effective time point. There are a number of modern formulations which are truly smart. They contain specific micro-biosubstances for the whole day and are perhaps taken only once daily. A time lock or the different rates of action of the individual substances assure that the relevant effects are triggered one by one, according to a circadian rhythm, and last well into the night.