Currently, assessment of preclinical and clinical pain presents a unique problem compared to other health conditions, such as cancer or heart disease, which can be detected by objective biological measurements. Diagnosis of chronic pain depends upon subjective reports by patients on the presence and intensity of pain. However, comparable reports on sensory attributes cannot be obtained from laboratory animals without language skills. Nevertheless, attempts to assess chronic pain in non-human species have involved observations of spontaneous behavioral or physiological reactions to presumed sources of pain (Vierck CJ, Hansson PT and Yezierski RP (2008) Clinical and pre-clinical pain assessment: are we measuring the same thing? Pain 135, 7-10).

Basic research uses a variety of animal models, which often barely mimic the clinical syndromes. Clinical (pharmacological) trials are currently focused on etiological entities, whereas symptoms are hardly taken into account. In order to make progress in the research into pathophysiology of pain and development of new therapies, basic researchers as well as clinicians should take the whole sensory syndrome into consideration. During this symposium recent progress in the development and validation of objective technical methods to assess pre-clinical and clinical pain will be presented and discussed. The exiting development of new techniques and methods to assess pain can be expected to greatly improve discovery of therapeutic agents and the development of successful remedies for chronic pain.

**Symposium contents**

- **Measuring pain-induced gait adaptation: the CatWalk method**
  A.F. Gabriel, W.M.M. Honig, M.A.E. Marcus, E.A.J. Joosten

- **Traditional and novel behavioral models to evaluate pain and analgesia in preclinical studies**
  Thomas Christoph

- **Measuring pain**
  M. Cabanac

- **Facial expression to discriminate between pain and absence of pain in critically ill intubated adults during painful procedures**
  M. R. Arif and M.J. Grap