HPR Fact-Sheet

30 Years Experience in Proof of Concept (PoC) Studies in Human Pain Research – using Human Pharmacodynamic (Laser) Algesimetry

The Approach
• Multiple intra-individual cross-over study designs
• 2- to 6-way crossover trial paradigms
• also with different skin conditions in the same trial conduct

Time and Cost Aspects
• Programmed saving with regard to both aspects
• Full-service-testing of diverse nociceptive conditions – within one study setting
• Minor pool of participants (e.g. about 16 to 24 subjects only)

Study Conduct
• Experimental part in well-defined time-lines
• 6-way (single-dose) trial in 6 weeks + Screening and ESV period
• 2 weeks for statistics and first results (with up to 2300 LEP sessions per study)
• Realtime recording and pre-analysis during study

The Settings
• Laser Evoked Potentials (LEP) from normal and sensitized skin conditions (e.g. UVB- and capsaicin-irritation)
• Healthy volunteers (+ psychophysics/ electronic VAS/ QST & skin colorimetry)

Validity & Comparability
• High - due to sophisticated (objective-quantitative) test paradigms and due to the high expertise with reference to results of former studies in many other marketed and experimental analgesic compounds - resulting in a large data base of analgesics (>50 compounds), done with the same or similar settings - over 30 years now


... laser-evoked potentials (LEPs) are the easiest and most reliable of the neurophysiological methods for assessing function of nociceptive pathways ...