Dr. Hucho was trained as a biochemist at the Free University Berlin, the Columbia University (A. Karlin), the Weizman Institute (M Schwartz), the Rockefeller University (G. Blobel), and the Max Planck Institute for Neurobiology (YA Barde). Since his PostDoc with Jon D. Levine at UCSF he works on cellular aspects of nociceptive signalling.

Currently Tim Hucho is at the Experimentelle Anästhesiologie und Schmerzforschung in the University of Cologne. His work is centered on intracellular signaling mechanisms underlying pain. He introduced the concept of “Nociceptive Modules“ to the pain field, which is at the core of this consortium, and defined first nociceptor subgroups based on their signaling functionality instead of their ion channel expression or electrophysiological functionality.

Tim Hucho laboratory focuses on primary sensory neurons and primary sensory neuron derived F11 cells, established as suitable surrogate cell line for extensive biochemical analysis of nociceptive signaling. Lentiviral systems for transfections are in place. Live cell imaging, calcium imaging, as well as current proteomic approaches (2D gel analysis of (membrane) proteins, protein array based screening for kinase substrates are applied. The development of a novel semi quantitative microscopy approach has been accomplished. This allows a first multiparametric analysis of morphological features, marker protein expression rates, and life cell imaging of primary sensory neurons on a single cell base. With a continuous readout (in contrast to a by-eye binary readout) and based on many 10 000 single neuron recordings this allows the definition of subgroup populations based on activation kinetics of endogenous signaling components.