



Dr Claus Schneider, from Vanderbilt University Medical School, USA was awarded by the Scientific Committee of ISANH Polyphenols 2014

*About Dr Claus Schneider's short oral presentation: **Biochemical Pharmacology of Curcumin***

The diphenol curcumin is recognized for its antioxidant, anti-inflammatory, and anti-tumorigenic bioactivities. It is currently tested in more than 90 clinical trials for the prevention or treatment of a broad range of diseases, including intestinal cancers, inflammatory, and neurodegenerative diseases. A large number of in vitro cellular targets of curcumin have been identified but the precise chemical-molecular mechanisms by which curcumin affects its biological targets have not been conclusively elucidated. We have discovered a novel, previously unrecognized transformation of curcumin: a spontaneous, rapid, and prominent autoxidation reaction gives rise to a dioxygenated cyclopentadione derivative of curcumin as the major product (1). We hypothesize that oxidative transformation is the biochemical basis underlying some, if not most, of the biological effects of curcumin.

To access to the complete abstract and other abstracts presented during ISANH Polyphenols 2014, [please click here.](#)

