

Prof Marc Diederich earned his PhD in molecular pharmacology in 1994 from the University Henri Poincaré Nancy 1, France. After training at the University of Cincinnati, USA, he focused his research on cancer and leukaemia cell signalling pathways and gene expression mechanisms triggered by natural compounds with epigenetic-, anti-inflammatory and cell death-inducing potential. He directs the Laboratory for molecular and cellular biology of cancer (LBMCC) at Kirchberg Hospital in Luxembourg. He was appointed Professor of Biochemistry at the College of Pharmacy of Seoul National University in 2012. Since 1998, he is the organizer of the “Signal Transduction” meetings in Luxembourg.

Prof Diederich’s research focuses on the development of novel anticancer drugs. As an example, natural marine compounds represent an interesting source of novel leads with potent chemotherapeutic or chemo-preventive activities. In the last decades, structure-activity relationship studies have led to the development of naturally-derived or semi-synthetic analogues with improved bioactivity, a simplified synthetic target or less toxicity. He and his collaborators investigated for example chalcones that are aromatic ketones, known to exhibit anti-microbial, anti-inflammatory and anti-cancer activities. Organic sulphur compounds (OSCs), cardiac glycosides and epigenetically active molecules derived from plants, fungi or bacteria can also serve as chemopreventive and/or chemotherapeutic agents and attracted Prof Diederich’s interest as a promising source for novel anti-cancer agents