

## CURRICULUM VITAE



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**Position:** Professor

**Institution:** College of Pharmacy, Seoul National University

**Location:** South Korea

### **Education:**

**1987:** Bachelor in Cell Biology and Physiology (Nancy, France)

**1989:** Master in Biochemical Pharmacology (Nancy, France and McArdle Laboratory for Cancer Research, Madison, WI, USA)

**1994:** Ph.D. in Molecular Pharmacology (Nancy, France and Department of Environmental Health, University of Cincinnati, Cincinnati, OH, USA)

### **Representative Careers:**

1994-2012: Director and principal investigator conducting independent research, leading and training a 25-person group including PhD scientists and PhD and MSc candidates:

Laboratory for Molecular and Cellular Biology of Cancer, Kirchberg Hospital, Luxembourg

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2012-2017: Associate Professor of Biochemistry

College of Pharmacy, Seoul National University, South Korea

2017- : Full Professor of Biochemistry (tenure) and principal investigator conducting independent research, leading and training a 10-person group including PhD scientists and PhD and MSc candidates:

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### **Specialty & Present Interest:**

Dr. 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 leukemia cell signaling 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 associate Professor of Biochemistry at the College of Pharmacy of Seoul National University in 2012. In 2017, he was tenured and promoted to full professor at SNU. Since 1998, he is the organizer of the "Signal Transduction" meetings in Luxembourg. Marc Diederich's research focuses on the development of novel anti-cancer 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 sulfur 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 Pr Diederich's interest as a promising source for novel anti-cancer agents.

**Representative papers:**

- [1] A. Mazumder, J.Y. Lee, O. Talhi, C. Cerella, S. Chateauvieux, A. Gaigneaux, C.R. Hong, H.J. Kang, Y. Lee, K.W. Kim, D.W. Kim, H.Y. Shin, M. Dicato, K. Bachari, A.M.S. Silva, B. Orlikova-Boyer, M. Diederich, Hydroxycoumarin OT-55 kills CML cells alone or in synergy with imatinib or Synribo: Involvement of ER stress and DAMP release, *Cancer Lett.* 438 (2018) 197-218.
- [2] M. Schnekenburger, E. Goffin, J.Y. Lee, J.Y. Jang, A. Mazumder, S. Ji, B. Rogister, N. Bouider, F. Lefranc, W. Miklos, V. Mathieu, P. de Tullio, K.W. Kim, M. Dicato, W. Berger, B.W. Han, R. Kiss, B. Pirotte, M. Diederich, Discovery and Characterization of R/S-N-3-Cyanophenyl-N'-(6-tert-butoxycarbonylamino-3,4-dihydro-2,2-dimethyl-2H-1-benzopyran-4-yl)urea, a New Histone Deacetylase Class III Inhibitor Exerting Antiproliferative Activity against Cancer Cell Lines, *J. Med. Chem.* 60(11) (2017) 4714-4733.
- [3] C. Cerella, A. Gaigneaux, A. Mazumder, J.Y. Lee, E. Saland, F. Radogna, T. Farge, F. Vergez, C. Recher, J.E. Sarry, K.W. Kim, H.Y. Shin, M. Dicato, M. Diederich, Bcl-2 protein family expression pattern determines synergistic pro-apoptotic effects of BH3 mimetics with hemisynthetic cardiac glycoside UNBS1450 in acute myeloid leukemia, *Leukemia* 31(3) (2017) 755-759.
- [4] F. Radogna, C. Cerella, A. Gaigneaux, C. Christov, M. Dicato, M. Diederich, Cell type-dependent ROS and mitophagy response leads to apoptosis or necroptosis in neuroblastoma, *Oncogene* 35(29) (2016) 3839-53.
- [5] M. Diederich, C. Cerella, Non-canonical programmed cell death mechanisms triggered by natural compounds, *Semin. Cancer Biol.* 40-41 (2016) 4-34.