

# Nutraceuticals and Nutrition Supplements

July 18-19, 2016 Bangkok, Thailand



## Nicolas Wiernsperger

Lyon University, France

### Mechanisms common to chronic diseases may be the best targets for nutraceutical approaches

Chronic degenerative diseases characterizing aging human beings share some common key mechanistic defects which, according probably to epigenetic and environmental factors, direct progressions towards the one or other pathology. One such key step is cellular resistance to insulin. Recent research has identified insulin resistance as a defect found in metabolic and vascular processes going far beyond the “classical” view of insulin’s biological effects on glucose metabolism. As a ubiquitous phenomenon showing an extremely high prevalence in the population, insulin resistance is now increasingly seen as an early occurring cellular disturbance affecting most various diseases. These observations then point to the likelihood of common origins of insulin resistance. Although multiple defects in insulin cellular action have been unraveled over the two last decades, it appears that one common denominator is chronic low grade inflammation. While the latter it may have different causes, mechanistic analysis of insulin resistance microvascular and metabolic disturbances shows that the chronic, even moderate augmentation of inflammatory substances (largely cytokines) is key to its genesis. The author will give a complete overview of these commonalities, which may explain the long term development of the main diseases affecting worldwide aging population. Since these defects are both mild and very lasting, they may be best suited as targets for nutraceutical therapy.

### Biography

Nicolas Wiernsperger has completed his PhD from Basle University, Switzerland. He was a Researcher at Novartis (Basle, Switzerland) and later a Research Director at Lipha/Merck KgA in Lyon, where he was chairing the international pharmacological development as well as a public/private research unit at Lyon University. He is an internationally recognized Specialist in pathophysiology and pharmacology of microcirculation, metabolic syndrome and diabetes. He has published more than 140 papers in reputed journals, Editor of 2 books and has been serving as an Editorial Board Member of repute.

[nicowi@hotmail.fr](mailto:nicowi@hotmail.fr)