allied academies

8th International Conference on
TRADITIONAL MEDICINE AND ACUPUNCTURE
July 23-24, 2018 | Rome, Italy

Paolo Lombardi, Arch Gen Intern Med 2018, Volume 2 | DOI: 10.4066/2591-7951-C1-001

Paolo Lombardi
Naxospharma Srl, Italy

Biography

Paolo Lombardi is graduated from Milan University (Italy), PhD from Southampton University (UK). He has more than 35 years of experience in the pharmaceutical industrial setting and backgrounds in organic synthetic chemistry, process research chemistry, and therapeutic chemistry. He held growing positions in Farmitalia Carlo Erba R&D where he achieved the goal of discovering exemestane, launched in the global market under the name Aromasin™ for breast cancer therapy, and the clinical follow-on candidate Minamestane, as well as providing the relative manufacturing chemical technologies. As Vice-President for Chemistry in Menarini Ricerche, he fostered the discovery of sabarubicin, a third-generation anti-tumor anthracycline presently in advanced clinical studies. He acted as a Consultant for the pharma company IBI G Lorenzini and the French start up biotech Chrysalon, before setting up his own science business. He is the inventor of more than 70 patents in Medicinal and Process Chemistry, author and co-author of more than 150 research papers, reviews, abstracts, invited lectures and seminars.

p.lombardi@naxospharma.eu

Note:

BERBERINE: AN EPIPHANY AGAINST CANCER?

Alkaloids are used in traditional medicine for the treatment of many diseases. These compounds are synthesized in plants as secondary metabolites and have multiple effects on cellular metabolism. Among plant derivatives with biological properties, the quinoline quaternary alkaloid berberine, a mainstay of the Traditional Chinese Medicine, possesses a broad range of therapeutic uses against several diseases. In recent years, clinical interest in berberine has strikingly increased. Moreover, the compound has been reported to inhibit cell proliferation and to be cytotoxic towards cancer cells by possibly implying targeting (post)-transcriptional control processes at messenger mRNA level. As a result, the appreciation by berberine of the difference of mRNA translational control between normal and cancer cells makes it a possible therapeutic opportunity against cancer. Based on this evidence, novel derivatives have been synthesized to improve berberine efficiency and selectivity. The results so far obtained on human cancer cell lines support the idea that they could be promising agents for cancer treatment. The main properties of berberine and new derivatives will be illustrated. Two promising berberine-derived drug candidates found to function as selecting suppressors of oncoprotein synthesis in mesothelioma and breast cancer, respectively, will be presented.