## NO to aging and cancer

## Reto Naef

Topadur Pharma AG, Grabenstrasse 11A, Schlieren, Switzerland

According to the World Health Organization, about 2 billion people of the world's population will be over the age of 60 years by 2050. The WHO added an extension code in the latest version of the International Classification of Diseases for "aging-related" diseases". Whether aging as such should be considered a disease that can be cured is rather controversial question. However many aging related diseases and conditions are modulated by nitric oxide (NO). NO controls telomerase, mitochondria biogenesis and cellular senescence; important central aging processes.

The endogenous production of nitric oxide (NO) is reduced with aging and this plays an important role in a number of diseases that affect the aging population like chronic non-healing wounds, hypertension, cardiovascular diseases, ophthalmic diseases, cancer and neurodegenerative diseases.

Topadur, the Swiss based biotech company in Schlieren (Zurich) is developing a new class of drugs based on their innovative cGMP-Enzyme Regulation System, which is modulated by NO, targeting high medical needs. TOPADUR's compounds through the cGMP-Enzyme Regulation System correct the deficit in the cell-cell communication. Based on the unique potency and efficacy TOPADUR built an R&D portfolio consists of promising development candidates in regenerative medicine, oncology, ophthalmology and medical aesthetics. Recent research discoveries generated the potential for tissue, cell and even organelles selective cGMP modulators with potential for new breakthrough therapeutics.