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Good Practice in Traditional Chinese Medicine  
Research in the Post-genomic Era





## Good Practice in Traditional Chinese Medicine Research in the Post-genomic Era



form of  $\alpha$ -synuclein causes toxicity in cells. Therefore, the aim of this study was to evaluate the possible protective effect of *Hypericum perforatum* phenolic compounds (quercetin, kaempferol and biapigenine), in the toxicity induced by the heterologous expression of  $\alpha$ -synuclein, using the yeast *Saccharomyces cerevisiae* as a model. Preliminary results indicate that the presence of these phenolic compounds decrease the protein accumulation in cells expressing  $\alpha$ -synuclein. We concluded that these phenolic compounds apparently have beneficial biological properties that consequently could have a potential use in preventing Parkinson's disease.

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### P10 - Curcumin-induced hormetic effects in human skin fibroblasts: implications toward anti-ageing interventions

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Ageing is associated with decreased cellular antioxidant defenses and with reduced ability to induce stress responses. We have tested the curcumin-induced hormetic stimulation of cellular stress responses in normal human skin fibroblasts, and associate those with potential anti-ageing effects. Curcumin incubation for 24h induced heme oxygenase-1 (HO-1) protein levels, GST activity, GSH levels and GSH/GSSG ratio. These effects were preceded in the first hours of incubation by induction of oxidative stress as shown by increased levels of ROS and DNA damage, and impairment of cells' GSH redox state. The curcumin-induced increase in antioxidant defenses was shown to be redox and PI3K/Akt-dependent in human fibroblasts. The induction of this stress response led to protective hormetic effects via a further oxidant challenge with *tert*-BOOH. Replicative senescent cells possessed already higher HO-1 levels, and induction of HO-1 by curcumin was considerably impaired. In conclusion, the induction of stress responses by curcumin in human skin fibroblasts, which resulted in protection against a subsequent stressor, supports the view that phytochemical-induced hormetic stimulation of cellular antioxidant defenses can be a useful approach toward anti-aging intervention.

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### P11 - Language Barriers, the Chinese Medicine Great Wall

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Abstract: Chinese medicine (CM) is nowadays being used all over the European Union and attracts increasing interest among European citizens, clinicians, suppliers of Chinese medicines, scientists, pharmaceutical companies and politicians. Nevertheless, in a Post-genomic Era, a personalised medicine like CM still holds several questions from the past that require contemporary answers. Coming from a background and a culture so different from our own, these

