



Ginkgo Extract EGb 761® Promotes New Nerve Connections in the Brain

KARLSRUHE, Germany, 11 June 2010. US scientists have shown that the Ginkgo extract EGb 761® promotes the formation of new nerve cells and new cell connections in the hippocampus, the brain's memory center. According to Professor Yuan Luo from the University of Maryland, Baltimore, the Ginkgo constituents responsible for these effects are quercetin and bilobalide.

“Our findings suggest that strengthened nerve-cell connections are a contributing factor to the beneficial effect of EGb 761® on cognitive functions. In Alzheimer-disease models the extract can stimulate the formation of fresh nerve cells and cell links. Our data therefore suggest that the extract can help improve cognitive decline in elderly people”, explained Professor Luo at a press conference in Amsterdam.

Over recent years, Professor Luo initially demonstrated that Ginkgo extract EGb 761® considerably reduces the pressure on nerve cells caused by the extremely damaging deposits of abnormal protein molecules typical of Alzheimer's disease. The particularly vulnerable brain cells in the hippocampus region, which regulate access to memory and the further processing of information, were protected against damage and formed new cell connections: “We were able to show that Ginkgo extract EGb 761® directly inhibits the formation of toxic A-beta oligomers and stimulates the development of newly functional nerve cells in a mouse model of Alzheimer's disease”, explained Professor Luo in Amsterdam. She continued: “It's well known that there is a proliferation of A-beta oligomers in the brains of Alzheimer patients and that they are responsible for the loss of nerve-cell connections.”

Most recently Professor Luo and her team have also examined the effect of the extract on healthy nerve cells. In so doing, she discovered that the EGb 761® components bilobalide and quercetin lead to an increased sprouting of new cell contacts on nerve cells in the hippocampus. These cell contacts (synapses) form the basis for passing on information between cells and, thus, for all forms of learning and memory. But, it wasn't only the number of contacts between cells that increased; Professor Luo's team also showed that the number of hippocampus nerve cells increased as a result of treatment with quercetin or bilobalide.

While quercetin is found in various plants, bilobalid is unique to the Ginkgo tree and is heavily enriched in EGb 761®.

From these results Professor Luo concludes: “We have taken an important step toward explaining the way in which the extract can help improve initial cognitive decline in elderly people. Based on our results, we can expect EGb 761® extract to protect and improve information processing in the hippocampus. Better nerve-cell connections improve memory and the capacity to learn”.

“The results obtained by Professor Luo during the research projects sponsored by the US National Institutes of Health (NIH) are very interesting indeed. They attest emphatically to the effects of EGb 761® on extremely harmful Alzheimer changes in the brain and to quite

fundamental processes in information processing”, stated Professor Michael Habs, Managing Director of Dr. Willmar Schwabe GmbH & Co. KG, Karlsruhe, the manufacturer of EGb 761®. EGb 761® is a patented Ginkgo biloba extract, developed by Schwabe Pharmaceuticals. It is widely regarded as the best researched phytomedicine worldwide and is available in more than 80 countries.

Dr. Willmar Schwabe Pharmaceuticals is a world leader in the development and production of plant-based pharmaceuticals (phytomedicines). The Group, with its headquarters in Karlsruhe, employs around 3,700 staff across five continents.

Sources:

Tchantchou F, Lacor PN, Cao Z, Lao L, Hou Y, Cui C, Klein WL, Luo Y. Stimulation of Neurogenesis and Synaptogenesis by Bilobalide and Quercetin via Common Final Pathway in Hippocampal Neurons. *Journal of Alzheimer’s Disease* 18 (2009) 787–798.

Tchantchou F, Xu Y, Wu Y, Christen Y, Luo Y. EGb 761® enhances adult hippocampal neurogenesis and phosphorylation of CREB in transgenic mouse model of Alzheimer’s disease. *The FASEB Journal* article fj.06-7649com. Published online March 13, 2007.

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