

3rd International Conference on

FOOD CHEMISTRY & NUTRITION

May 16-18, 2018 | Montreal, Canada



Yuanlong Pan

Nestlé Purina Research, USA

Optimal nutrition for better cognitive function and healthy brain aging

Brain aging is an inevitable process, but the rate of brain aging differs significantly among individual people and pets. As a result, there are two primary outcomes of brain aging in people. In cases of healthy brain aging, elderly people manage to maintain relatively normal brain function due to mild to moderate brain atrophy. The second outcome of brain aging is accelerated brain aging. Seniors with accelerated brain aging suffer from mild cognitive impairment (MCI) or dementia including *Alzheimer's disease* (AD) due to severe brain atrophy. Senior pets can also be classified into two similar outcomes. Senior pets with accelerated brain aging develop cognitive impairment or cognitive dysfunction syndrome (CDS). Many factors affect the rate of brain aging in people. Deficiency of many nutrients is associated with increased risk of MCI and AD. Dietary antioxidants, omega-3 polyunsaturated fatty acids, and B vitamins have been shown as protective factors against cognitive decline and AD. Given the similarity between AD and CDS, it is highly possible that many of the risk factors identified in people can apply to senior pets. Our studies have shown that diets formulated to address those risk factors are able to enhance cognitive function in normal aging dogs and cats and improve clinical symptoms of dogs with CDS. Those data suggest that similar nutritional solutions may be developed to enhance cognitive function, promote healthy brain aging, reduce the incidence of AD, and manage clinical symptoms of AD in people.

Biography

Yuanlong Pan is Principal Research Scientist at Nestlé Purina Research. He is also a Fellow of the Academy of Science-St. Louis. His research has been focused on nutritional management of healthy brain aging and cognitive dysfunction syndrome (CDS) in dogs and cats. CDS is a condition in pets similar to AD in people. His research projects use state-of-the-art cognitive, nutritional and metabolomics approaches to develop nutritional solutions to promote healthy brain aging and improve clinical symptoms of CDS in pets. He has published more than 20 papers and obtained 78 patents.

Yuanlong.pan@rd.nestle.com

Notes: