

13<sup>th</sup> International Congress on  
Advances in Natural Medicines Nutraceuticals & Neurocognition  
&  
14<sup>th</sup> International Conference on Clinical Nutrition  
July 27-29, 2017 Rome, Italy

## Amylgen, your partner for “brain health” products development

**Francois J Roman**  
Amylgen, France

Acting as a CRO, Amylgen has developed a unique and proprietary know-how on rodent models of Alzheimer's disease and other CNS pathologies. We are working more and more with companies involved in nutrition field. We have set up new models allowing to reproduce brain ageing process. In particular, senescence accelerated mice (SAM): the P8 sub strain (SAM-P8) has a markedly shortened life span when compared to the R1 sub strain (SAM-R1). Mitochondrial dysfunction, oxidative stress, and increased somatic DNA mutation rate all appear to be involved in the mechanisms responsible for the accelerated ageing process. Another model of ageing is the D-galactose (DG) induced ageing mouse model. Chronic treatment with DG leads to the acceleration of senescence. Animals show cognitive dysfunction, neurologic impairment associated with the increases of brain oxidative stress, cholinergic degeneration, impairment of synaptic plasticity and neurogenesis, altered expression of amyloid-beta metabolism-associated molecules, reactive gliosis and neuroinflammation. Finally we propose models in young rats or mice allowing to test the effects of products on learning capacity in normal animals or in animals with a learning deficit produced by a prenatal stress. Behavior tests are available for exploring the various aspects of brain health during ageing. A large panel of memory tests allows exploring and analyzing many aspects of memory. Tests for evaluating depression and anxiety are also available. Biochemical, neurochemical and histological analyses are performed to translate health status of ageing brain such as oxidative stress, mitochondrial function, synaptic function, cholinergic system integrity. Neuroinflammation is explored by the study of astrocyte and microglia activation. The neurogenesis potential of the product may also be determined. Amylgen's platform helps its customers characterizing their products, allowing an attractive communication about their properties and also preparing further clinical studies for obtaining a health claim from FDA or EFSA.

### Biography

François J Roman co-founded Amylgen in 2009. Previously, he served as the VP of R&D at Euroscreen, Belgium from 2004. Prior to this position, he had held various Drug Discovery management positions at Pfizer PGRD France, Parke-Davis France, Jouveinal Laboratoires, and Laboratoires Servier, where he started his career in 1977. He holds a PhD in Biochemistry from the University of Paris VI, France and has more than 40 publications and 35 patents.

francois.roman@amylgen.com

### Notes: