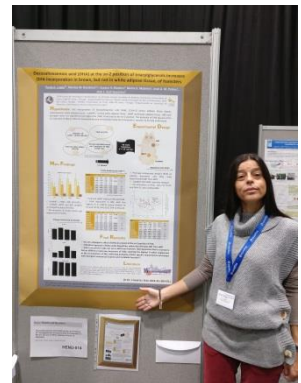


Paula Alexandra Lopes
Researcher
ampalopes@fmv.ulisboa.pt

Faculdade de Medicina Veterinária (FMV) da Universidade de Lisboa
Centre for Interdisciplinary Research in Animal Health (CIISA)



Tailor-made structured lipids for the prevention of Alzheimer's disease

Alzheimer's disease is a growing pandemic that presents profound challenges to healthcare systems, families and societies throughout the world. By 2050, the number of people living with dementia worldwide could almost triple, from 47 to 132 million, with associated costs rising to \$3 trillion. DHA is the most abundant long-chain polyunsaturated fatty acid from the *n*-3 family in the brain. Animal experimental trials demonstrate that oral intake of DHA reduces Alzheimer-like brain pathology. In this pilot study, our ultimate goal is to demonstrate a target enrichment of brain DHA leading to a functional improvement in learning, memory and brain function which are impaired in AD by means of providing a novel developed formulation of structured triacylglycerols (ST-TAG) with DHA esterified at the sn-2 position derived from a sustainable enriched natural source which are the underexploited microalgae. This aspect complies with specific sustainable development goals promoted by the United Nations (<https://www.un.org/sustainabledevelopment/sustainable-development-goals/>) for 2030, in particular to ensure healthy lives and promote well-being for all at all ages (goal 3), and to promote the sustainable use (goal 12) of the oceans, seas and marine resources (goal 14).