AgedBrainSYSBIO

RRID:SCR_003825
Type: Tool

Proper Citation
AgedBrainSYSBIO (RRID:SCR_003825)

Resource Information

URL: http://www.agedbrainsysbio.eu/

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Description: Consortium focused on identifying the foundational pathways responsible for the aging of the brain, with a focus on Late Onset Alzheimer's disease. They aim to identify the interactions through which the aging phenotype develops in normal and in disease conditions; modeling novel pathways and their evolutionary properties to design experiments that identify druggable targets. As early steps of neurodegenerative disorders are expected to impact synapse function the project will focus in particular on pre- or postsynaptic protein networks. The concept is to identify subsets of pathways with two unique druggable hallmarks, the validation of interactions occurring locally in subregions of neurons and a human and/or primate accelerated evolutionary signature. The consortium will do this through six approaches: * identification of interacting protein networks from recent Late-Onset Alzheimer Disease-Genome Wide Association Studies (LOAD-GWAS) data, * experimental validation of interconnected networks working in subregion of a neuron (such as dendrites and dendritic spines), * inclusion of these experimentally validated networks in larger networks obtained from available databases to extend possible protein interactions, * identification of human and/or primate positive selection either in coding or in regulatory gene sequences, * manipulation of these human and/or primate accelerated evolutionary interacting proteins in human neurons derived from induced Pluripotent Stem Cells (iPSCs) * modeling predictions in drosophila and novel mouse transgenic models * validation of new druggable targets and markers as a proof-of-concept towards the prevention and cure of aging cognitive defects. The scientists will share results and know-how on Late-Onset Alzheimer Disease-Genome Wide Association Studies (LOAD-GWAS) gene discovery, comparative functional genomics in mouse and drosophila models, in mouse transgenic approaches, research on human induced pluripotent stem cells (hiPSC) and their differentiation in vitro and modeling pathways with emphasis on comparative and evolutionary aspects. The four European small to medium size enterprises (SMEs) involved...
will bring their complementary expertise and will ensure translation of project results to clinical application.

**Abbreviations:** AgedBrainSYSBIO

**Resource Type:** portal, data or information resource, organization portal, consortium

**Keywords:** consortium, drug, drug development, brain, phenotype, presynaptic, protein network, postsynaptic, systems biology, synapse, neuron, protein interaction, network, induced pluripotent stem cell, pathway, genome wide association study, cognitive defect, gene, protein

**Funding Agency:** European Union FP7

**Resource Name:** AgedBrainSYSBIO

**Resource ID:** SCR_003825

**Alternate IDs:** nlx_158132

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**Ratings and Alerts**

No rating or validation information has been found for AgedBrainSYSBIO.

No alerts have been found for AgedBrainSYSBIO.

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**Data and Source Information**

**Source:** SciCrunch Registry

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**Usage and Citation Metrics**

We found 3 mentions in open access literature.

**Listed below are recent publications.** The full list is available at RRID.

