

Capillary electrophoresis based high-throughput system for beta-secretase inhibitor screening as a therapeutic target of Alzheimer's disease

<https://www.neurodegenerationresearch.eu/survey/capillary-electrophoresis-based-high-throughput-system-for-beta-secretase-inhibitor-screening-as-a-therapeutic-target-of-alzheimers-disease/>

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Country

Czech Republic

Title of project or programme

Capillary electrophoresis based high-throughput system for beta-secretase inhibitor screening as a therapeutic target of Alzheimer's disease

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Czech Science Foundation

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€ 222,444

Start date of award

01/01/2016

Total duration of award in years

3

Keywords

Research Abstract

The aim of the project is the development of the high-throughput system based on capillary electrophoresis for the purpose of beta-secretase inhibitor screening as a potential therapeutic target for

the Alzheimer's disease treatment. Whereas the classic off-line assays will be used mainly as supporting methods, the main attention will be paid on on-line approaches – Electrophoretically Mediated MicroAnalysis and Transverse Diffusion of Laminar Flow Profiles methodologies and IMmobilised Enzyme Reactor. They are probably the best candidates for high throughput screening of new drugs because their main feature is full automatization combined with very low sample consumption since they use the capillary not only as a separation medium but also as a reaction chamber. Incubation of the enzymatic reaction, separation of the reaction products and their detection is thus integrated into a single fully automated analysis, not only increasing the throughput of the assay but also minimizing the possibility of experimental error and the consumption of reactants.

Further information available at:

Types:

Investments < €500k

Member States:

Czech Republic

Diseases:

N/A

Years:

2016

Database Categories:

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