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

https://neurodegenerationresearch.eu/survey/capillary-electrophoresis-based-high-throughput-system-for-beta-secretase-inhibitor-screening-as-atherapeutic-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

Total sum awarded (Euro)

€ 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:
N/A

Database Tags:
N/A