From zebrafish to man Modifying amyotrophic lateral sclerosis (ALS): translation of biology into therapy

https://neurodegenerationresearch.eu/survey/from-zebrafish-to-manmodifying-amyotrophic-lateral-sclerosis-als-translation-of-biology-into-therapy/

Principal Investigators
Institution
Contact information of lead PI
Country

European Commission

Title of project or programme

From zebrafish to man Modifying amyotrophic lateral sclerosis (ALS): translation of biology into therapy

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European Commission FP7-Seventh Framework Programme

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€ 2,467,990

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01/05/2014

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5.0

The project/programme is most relevant to:

Motor neurone diseases

Keywords
Research Abstract
Amyotrophic lateral sclerosis (ALS) is a fatal neurodegenerative disease of the motor neurons. As for other neurodegenerative disorders, translation of newly acquired biological insights into therapies has been difficult. In the current project we intend to contribute to the development of therapeutic approaches for ALS. We want to generate novel models, identify new therapeutic targets for intervention, and translate these into validated options for drug development in ALS. This will be done by establishing a continuous line of research from the (unbiased) screening for targets in a small animal model (zebrafish), to the exploration of their therapeutic potential, and

the validation in patients. In addition, by exploring the significance of some of the findings for other neurodegenerative disorders, we hope to demonstrate this approach to be valid for the field of neurodegenerative disorders in general. This research will be performed bases on 6 work packages (WP): 1.screening of a zebrafish model for ALS to identify therapeutic targets; 2. validation of these targets in larger vertebrate ALS models; 3. investigation of the mechanism of action of these targets in order to establish approaches to interfere with them; 4. validation of these targets in human ALS; 5. generation of preclinical data on these targets; 6. exploration of the possible role of these targets in other neurodegenerative diseases.

Results from WP1 will be used for further research in WP2, results from WP2 in WP3, etc. We have gathered a large set of data in preparatory work in zebrafish, enabling us to start all WPs from the beginning of the project on.

This project involves collaborations with several other groups, national and international, which all have been established. Furthermore, all transgenic mice needed to initiate all these WPs have been generated and available to us.

Lay Summary
Further information available at:

Types:
Investments > €500k

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European Commission

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Motor neurone diseases

Years:
2016

Database Categories:
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