

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

<https://www.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

## **Source of funding information**

European Commission FP7-Seventh Framework Programme

## **Total sum awarded (Euro)**

€ 2,467,990

## **Start date of award**

01/05/2014

## **Total duration of award in years**

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 based 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

**Member States:**

European Commission

**Diseases:**

Motor neurone diseases

**Years:**

2016

**Database Categories:**

N/A

**Database Tags:**

N/A