

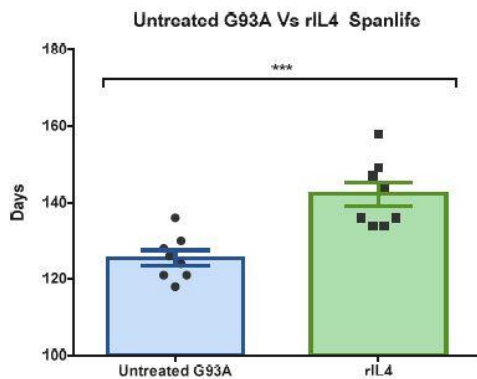
# Treatment and prevention of Amyotrophic Lateral Sclerosis

**Areas:** Health, Pharma, Drugs, Rare Diseases

**Collaboration Opportunity:** Available to license

**Summary:** ALS is devastating neurodegenerative disorder. It's a debilitating and life-threatening disease because of the gradual loss of function and its paralyzing effect on muscles used for breathing, which usually leads to death from respiratory failure. The average life expectancy of ALS patients after diagnosis is between 2-5 years.

A group of researchers in the University of Lleida have preclinical evidence for the positive effects of a peptide administration in the mouse model for ALS (mSOD1G93A mice). When treated with a solution containing interleukin-4 polypeptide (IL4), it is able to prolong survival, delay the manifestation of the most apparent symptoms of the disease and improve the clinical course of the disease attenuating body weight loss and improving the motor behavior.



**Need:** Currently, there is no cure for ALS. There only exist two approved ALS medicine: riluzole (Rilutek®), modestly slows the progression of the disease in some people and the recently approved edaravone (Radicava®) reduces the rate of functional decline in these patients. Treatments focus on the alleviation of symptoms, and possibly slowing down the rate of ALS progression.

**Market:** ALS cases across the globe will increase from 222,801 in 2015 to 376,674 in 2040, representing an increase of 69%. This increase is predominantly due to ageing of the population, particularly among developing nations. More than 6,000 people in the United States are diagnosed with ALS each year, according to the ALS Association, and it is estimated that ALS affects 1 in 10,000 people in the European Union.

**Applications:** With the main aim to minimize or even erase the progression of ALS, the goal would be to develop a more effective therapeutic treatment than those currently available. Our solution could be also developed as a combination product with other therapeutic agents showing promising outcomes.

**Development status:** Proof-of-concept phase: Non-regulatory preclinical tests have been developed in animals at P30 and P50 stages, under several routes of administration.

**Intellectual Property:**

- PCT application, PCT/ES2017/070096