



ALS Research Forum e-Newsletter Vol. 205

September 26, 2018

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Research News

[Cognitive Deficits Worse With ALS Stage](#)

Cognitive challenges occur early in ALS and are more common at later stages of the disease according to a new study led by University of Edinburgh's **Sharon Abrahams** in Scotland. The findings suggest that early, routine screening is needed to spot these challenges. The study appeared on September 12 in *Neurology*.

Scientists suspect that the loss of synapses in key regions of the brain may cause cognitive deficits in people with ALS. Check out [Missing Connections May Explain Cognitive Challenges in ALS](#) to learn more.

[FUS May Help Keep Motor Neurons' Genomes In Good Nick](#)

DNA damage may occur early in at least some forms of ALS, contributing to motor neuron toxicity ([March 2018](#) news; see also [July 2017](#) news). But why this damage may go unrepaired remains unclear. Now, a research team led by Houston Methodist Hospital's **Muralidhar Hegde** in Texas reports that FUS helps repair DNA damaged due to oxidative stress by recruiting DNA ligase III α -XRCC1 via a PARP-1 dependent mechanism. The study appeared on September 11 in *Nature Communications*. Efforts to target the DNA repair machinery in ALS are currently underway.

To learn more about the role of DNA damage in ALS, check out [Targeting FUS: DNA Damage Control in ALS](#).

[Potential SOD1 ALS Gene Therapy Right On Target Scientists Say](#)

Researchers are one step closer to developing a potential gene therapy for SOD1 ALS according to a new study led by University of Sheffield's **Pamela Shaw** and **Mimoun Azzouz** in England. The approach reduced neuronal loss in a mouse model of the disease up to 88% and increased its survival by up to

42%. No off-target effects could be detected. The strategy is one of a growing number of approaches that aims to lower levels of misfolded SOD1 in motor neurons using RNA interference technologies ([December 2017](#) news; see also [May 2017](#) news). The study appeared on September 7 in *Molecular Therapy Nucleic Acids*.

[ALS Mutations Stiffen Profilin, Steer Protein Toward Aggregation](#)

About 1 to 2% of inherited cases of ALS (see [July 2012](#) news) occur due to mutations in profilin. Why these changes in this regulator of the actin cytoskeleton result in the disease remains unclear. Now, a research team led by University of Arkansas' **Mahmoud Kiaei** propose that these mutations result in key structural changes in profilin that steer the protein to aggregate, potentially contributing to neurotoxicity. Efforts to develop small molecules that stabilize profilin are currently underway (see [June 2015](#) news). The study is published on August 30 in *Scientific Reports*.

To learn more about how changes in profilin may contribute to ALS, check out [Profilin May Act Up at Neuromuscular Junctions in ALS](#).

Check out [our website](#) to read more of the latest research advances in ALS.

Funding Opportunities:

Looking to fund neuroscientists who are in their 3rd, 4th or 5th year of their postdoctoral fellowship including salary and lab costs? Check out the [Warren Alpert Scholars Fellowship Award](#). Medical Schools in the US Only.

September 2018

[Research Grants](#). Frick Foundation for ALS Research. Application due by **September 30, 2018**. Note the revised due date!

October 2018

[Clinical Research Training Scholarship in ALS](#). ALS Association and the American Brain Foundation. Application due by **October 1, 2018**.

[Richard Olney Clinical Scientist Development Award](#). ALS Association and the American Brain Foundation. Application due by **October 1, 2018**.

[Discovering New Therapeutic Uses for Existing Molecules](#) (Pre-Application). NCATS. Letter of Intent due by **October 1, 2018**.

[Career Awards for Medical Scientists](#). Burroughs Wellcome Fund. Application due by **October 1, 2018**.

[Canada Gairdner International Award](#). Gairdner Foundation. Focus: Human Biology and Disease. [Nominations](#) due by **October 1, 2018**. Researchers around the world are encouraged to apply!

[Research Grants](#). Basic Neuroscience. Whitehall Foundation. LOI due by **October 1, 2018**.

[Excellent Paper In Neuroscience Award](#). Network of European Funding for Neuroscience Research. Early Career Scientists. Application due by **October 1, 2018**.

[Sartorius & Science Prize for Regenerative Medicine & Cell Therapy](#). Science Magazine and the Sartorius Group. Publish in *Science!* Application due by **October 1, 2018**.

[Systems Approaches for the Discovery of Combinatorial Therapies for Complex Disorders](#). EU Horizon 2020. Application due by **October 2, 2018**.

NEW! [Imaging Scientists Program](#). Chan Zuckerberg Initiative. Pre-Proposal due by **October 3, 2018**.

[MRC AstraZeneca Centre for Lead Discovery Initiative](#). UK. Access provided to AstraZeneca small molecule libraries. Application due by **October 3, 2018**.

[MRC UCB Antibody Discovery Initiative](#). UK. Application due by **October 3, 2018**.

[New Investigator Research Grant](#). Neuroscience and Mental Health. MRC. UK. Application due by **October 3, 2018**.

[NeuroNEXT Clinical Trials](#). NINDS. Application due by **October 5, 2018**.

[Computational Science Fellowship](#) (Includes FTD). Canada. Funding Priorities Include: Identifying Potential Biomarkers and Therapies and Modeling Progression Rates. Michael J. Fox Foundation and Weston Brain Institute. Proposal due by **October 8, 2018**.

November 2018

[Biomedical Research Project Grants](#). MND Association. Summary application due by November 2, 2018.

[AP Giannini Foundation Postdoctoral Research Fellowship and Career Development Award](#). Application due by November 5, 2018. California only!

NEW! [Global Grants for Gut Health](#). Nature Research, Yakult. Funding priorities include the gut-brain axis and the role of microbiota in human disease. Applications due by November 30, 2018.

Check out our [updated list](#) of grants and awards.

Job Opportunities:

Looking to start your own lab? Duke University, MIT and Rockefeller University are hiring. Applications due as early as October 1, 2018. Check out [our job board](#)!

[Principal Investigator](#), Neuroscience. VIB. Leuven, Belgium.

[Professor and Department Head](#), Anatomy & Neuroscience. University of Melbourne. Australia.

[Faculty \(Open Rank\)](#), Center for Gene Therapy. Nationwide Children's Hospital. Columbus, OH.

[Faculty \(Open Rank\)](#), Center for Neural Science and Medicine. Cedars-Sinai. Los Angeles, CA.

[Faculty \(Open Rank\)](#), Neurobiology of Disease. Gladstone Institutes/UCSF. San Francisco, CA.

[Faculty \(Open Rank\)](#), NeuroGenetics. University of Florida. Gainesville, FL.

[Faculty \(Open Rank\)](#), Biopharmaceutical Discovery. University of Delaware. Newark, DE.

[Assistant Professor](#), Molecular Neuroscience. Stanford University. Stanford, CA.

[Assistant Professor](#), Molecular Neuroscience. University of Texas Southwestern. Dallas, TX.

[Postdoctoral Fellow](#), Gao Lab. UMass Medical School. Worcester, MA

[Postdoctoral Fellow](#), Isaacs and Partridge Labs. University College London. London, England.

[Director or Associate Director](#), Cell Culture Development. Voyager Therapeutics. Cambridge, MA.
[Research Scientist II](#), Translational Genome Sciences. Biogen. Cambridge, MA.

Hiring someone onto your team? Contact us to add your listing to [our updated job board](#): ALSjobs@prize4life.org.

[Full List of Job Opportunities >>](#)

Upcoming Meetings:

October 2018

October 2-4, 2018. Clearwater Beach, FL. [NEALS Annual Meeting](#).

October 23-25, 2018. Fort Worth, TX. [ALS Association Clinical Conference](#).

NEW! October 25. Philadelphia, PA. [The Molecular Biology of Aging and Neurodegeneration](#). Register free by October 23, 2018.

November 2018

November 1-2, 2018. San Diego, CA. [RNA Metabolism In Neurological Disease](#).

November 3-7, 2018. San Diego, CA. [Society for Neuroscience Annual Meeting](#).

November 28-December 1, 2018. Cold Spring Harbor, NY. [Neurodegenerative Diseases, Biology and Therapeutics](#).

December 2018

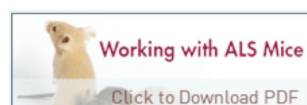
December 2-4, 2018. Los Angeles, CA. [Translation of Stem Cells To The Clinic, Challenges and Opportunities](#).

December 6, 2018. Glasgow, Scotland. [ALS/MND Allied Professionals Forum](#).

December 7-9, 2018. Glasgow, Scotland. [International Symposia on ALS/MND](#).

Organizing an ALS meeting? Contact us to add your conference to [our updated calendar](#): ALSmeetings@prize4life.org.

[Full List of Upcoming Meetings>>](#)



[Download the Working with ALS Mice Manual Here](#)

