ALS Research Forum e-Newsletter Vol. 195 **April 25, 2018**

Visit the ALS Research Forum to read the complete stories featured in this e-newsletter. Friends and colleagues can sign up for the newsletter here. Follow us on Facebook and Twitter for the latest updates.

Research News

Liquid Phase Transition: A Deluge of Data Points to Multiple Regulators

RNA-binding proteins including FUS and TDP-43, clump up in motor neurons in ALS, potentially contributing to motor neuron toxicity. But how to develop therapies that break apart these aggregates remains unclear (see September 2017 news). Now, four research teams, led by University of Pennsylvania's James Shorter, University of Texas Southwestern's **Yuh Min Chook**, Ludwig-Maximilians-Universität's **Dorothee Dormann** in Germany and University of Toronto's **Peter St George-Hyslop** in Canada, report that the nuclear import receptor transportin-1 is a disaggregase, and at increased levels, can dissolve inclusions containing key RNA-binding proteins including FUS and TDP-43. The studies appeared on April 19 in *Cell*.

To learn more about how scientists aim to target proteostasis in ALS, check out *Targeting FUS: DNA Damage Control in ALS*.

In ALS, Do Motor Neurons Go Out with a Bang or a Whimper?

Hyperexcitability may play a key role in ALS. But according to a March 27 report in *Elife*, led by Université Paris Descartes' **Marin Manuel** in France, reduced activity can be detected in neurons that are most vulnerable to ALS - at least in a mouse model of the disease. The results suggest, according to Manuel's team, that hypoexcitability may occur prior to neurodegeneration and may be compensatory, to defend motor neurons against ALS. The findings build on previous studies which found that motor neurons become hypoexcitable in cellular and animal models of ALS (see December 2017 news; Sareen et al., 2013; Devlin et al., 2015; Delestrée et al., 2014; White et al., 2018) . Together, the results stoke the debate about hyperexcitability in ALS and if, when and how to target it in the disease.

To learn more about the emerging role of ion channels in ALS, including therapies being tested in the clinic that target them, check out *A Key Ion Channel May SLACK Off in ALS*.

Genetics Tie ALS into the Frontotemporal Dementia Spectrum

ALS may be more similar to frontotemporal dementias than previously thought according a new report published on April 9 in *JAMA Neurology*. The GWAS analysis, led by **Rahul Desikan** at the University of California, San Francisco, found substantial

genetic overlap between ALS, FTD, corticobasal degeneration and progressive supranuclear palsy. The shared risk factors identified included the H1 haplotype of the tau gene, a known risk factor for several neurodegenerative diseases. The results may help identify people at risk of developing ALS and provide new insight into underlying mechanisms of the disease.

Clinical Trial News

EMA Rejects Approval of Masitinib For ALS In Europe; AB Science Plans To Appeal

A key EMA advisory committee voted against the approval of AB Science's masitinib as a treatment for ALS in Europe. The recommendation, known as a "negative opinion", is based in part on concerns about the phase 3 clinical trial results and their subsequent analysis. AB Science plans to appeal the decision. The appeal, known as a "re-examination", is expected to be completed by July 2018.

To learn more about masitinib, check out *The Phase III Results for Masitinib Are Now In. But Experts Remain Divided*.

Check out our website to read more of the latest research advances in ALS.

Funding Opportunities:

The Wellcome Trust Innovator Award supports the development of diagnostics and repurposed medicines in the UK for neurological disorders including rare diseases. Applications are accepted on a rolling basis. Up to £500,000 awarded.

April 2018

Teva CNS Target Identification Crowdsourcing Challenge. TEVA and the ALS Association. Proposals due by **April 29, 2018**.

Identify, Analyze and Evaluate Potential Risk Factors for ALS. CDC. Application due by **April 30, 2018**.

Breakthrough Prize. Nominate a scientist by **April 30, 2018**!

May 2018

VJ Chapman Research Fellowship. Neurological Foundation of New Zealand. Application due by **May 1, 2018**.

Graduate Studentships. MND Association. Applications due by **May 4, 2018**.

Non-Clinical Fellowships. MND Association. Applications due by **May 4, 2018**.

Promotion of Translation-Oriented Collaborative Projects in the Field of Rare Diseases. German Federal Ministry of Education and Research (BMBF). Application due by May 8, 2018.

Harrington Scholar-Innovator Program. Physician Scientists. Discovery or Development of Novel Drugs or Biologics. Application due by May 10, 2018.

NEW! ALS Canada-Brain Canada Trainee Program. Postdoctoral and graduate fellowships available. Application due by May 25, 2018.

New Investigator Research Grant, Neurosciences and Mental Health (UK). MRC. Application due by May 30, 2018.

June 2018

MDA Venture Philanthropy Program. LOI due by June 1, 2018.

ALS Canada Project Grant Program. ALS Canada. June 8, 2018.

Research Grants. Muscular Dystrophy Association. Letter of Intent due by June 15, 2018.

Scientific Innovations Award. Brain Research Foundation. LOI due by June 22, 2018.

NEW! ALSRP Therapeutic Development Award. Application due by June 22, 2018.

NEW! ALSRP Therapeutic Idea Award. Application due by June 22, 2018.

Roger de Spoelberch Prize. Roger de Spoelberch Foundation. Focus: basic and clinical neurodegenerative disease research. Application due before June 30, 2018.

Check out our updated list of grants and awards.

Job Opportunities:

Director, Therapeutic Development. University of Pennsyvania, Philadelphia, PA.
Asst. or Associate Professor, Neuroscience. Case Western Reserve University. Cleveland, OH.
Assistant or Associate Professor. University of Pittsburgh. Pittsburgh, PA.
Postdoctoral Fellow, Bertolotti Lab. MRC Laboratory of Molecular Biology. Cambridge, England.
Postdoctoral Fellow, Gopal Lab. Yale University. New Haven, CT
Postdoctoral Fellow, Sareen Lab. Cedars-Sinai. Los Angeles, CA.
Postdoctoral Fellow. Shirley Ryan Ability Lab. Chicago, IL.
Postdoctoral Fellow, Sun Lab. Johns Hopkins University. Baltimore, MD.
Research Assistant. University of Oxford. Oxford, England.
Research Assistant, Rockefeller University. New York, NY.
Research Assistant. University of Sheffield. Sheffield, England.

Principal Scientist, BBB Transport Technologies. Biogen. Cambridge, MA.
Senior Scientist, Neuroscience. Merck. Boston, MA.
Staff Scientist, Medicinal Chemistry. Yumanity Therapeutics. Boston, MA.
Scientist I, Small Molecules and ASOs. Biogen. Cambridge, MA.
Associate Scientist. Yumanity Therapeutics. Cambridge, MA.
Senior Research Associate, Neurobiology. Verge Genomics. San Francisco, CA.

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:

Final week to submit your abstract for the SfN 2018 satellite meeting RNA Metabolism and Neurological Disease in San Diego, California. Abstracts due: May 1, 2018.

April 2018

April 30-May 4, 2018. Jackson Laboratory. Bar Harbor, ME. Workshop: Using Mouse Models to Study Neurodegenerative Disease.

May 2018

May 14-17, 2018. EMBL. Heidelberg, Germany. Cellular Mechanisms Driven by Liquid Phase Separation.

June 2018

June 17-21, 2018. Keystone, Colorado. Advances in Neurodegenerative Disease Research and Therapy.

June 20-22, 2018. Oxford, England. ENCALS 2018.

June 22-23, 2018. Oxford, England. TRICALS 2018.

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

STAY CONNECTED: