

# Stanford

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## Tetsuya Akiyama

Postdoctoral Scholar, Genetics

### Bio

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#### HONORS AND AWARDS

- Training Program in Aging Research (TPAR; T32), Stanford University (2021)
- Fellowship, Takeda Science Foundation (2020)

#### BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Board Certified Fellow, Japanese Society of Neurology (2019 - present)
- Board Certified Fellow, Japanese Society of Internal Medicine (2019 - present)

#### PROFESSIONAL EDUCATION

- Doctor of Medicine, Tohoku University (2010)
- Doctor of Philosophy, Tohoku University (2017)
- M.D., Tohoku University (2010)
- Ph.D, Tohoku University Graduate School of Medicine (2017)

#### STANFORD ADVISORS

- Aaron Gitler, Postdoctoral Faculty Sponsor

### Publications

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#### PUBLICATIONS

- **Targeting RTN4/NoGo-Receptor reduces levels of ALS protein ataxin-2.** *Cell reports*  
Rodriguez, C. M., Bechek, S. C., Jones, G. L., Nakayama, L., Akiyama, T., Kim, G., Solow-Cordero, D. E., Strittmatter, S. M., Gitler, A. D.  
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- **Genome-wide CRISPR screen reveals v-ATPase as a drug target to lower levels of ALS protein ataxin-2.** *Cell reports*  
Kim, G., Nakayama, L., Blum, J. A., Akiyama, T., Boeynaems, S., Chakraborty, M., Couthouis, J., Tassoni-Tsuchida, E., Rodriguez, C. M., Bassik, M. C., Gitler, A. D.  
2022; 41 (4): 111508
- **Cracking the cryptic code in amyotrophic lateral sclerosis and frontotemporal dementia: Towards therapeutic targets and biomarkers.** *Clinical and translational medicine*  
Akiyama, T., Koike, Y., Petrucelli, L., Gitler, A. D.  
2022; 12 (5): e818
- **TDP-43 represses cryptic exon inclusion in the FTD-ALS gene UNC13A.** *Nature*  
Ma, X. R., Prudencio, M., Koike, Y., Vatsavayai, S. C., Kim, G., Harbinski, F., Briner, A., Rodriguez, C. M., Guo, C., Akiyama, T., Schmidt, H. B., Cummings, B. B., Wyatt, et al  
2022
- **Identification of hub molecules of FUS-ALS by Bayesian gene regulatory network analysis of iPSC model: iBRN** *NEUROBIOLOGY OF DISEASE*  
Nogami, M., Ishikawa, M., Doi, A., Sano, O., Sone, T., Akiyama, T., Aoki, M., Nakanishi, A., Ogi, K., Yano, M., Okano, H.

2021; 155: 105364

- **Reduced PHOX2B stability causes axonal growth impairment in motor neurons with TARDBP mutations** *STEM CELL REPORTS*  
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2021; 16 (6): 1527-1541
- **An Amyotrophic Lateral Sclerosis-Associated Mutant of C21ORF2 Is Stabilized by NEK1-Mediated Hyperphosphorylation and the Inability to Bind FBXO3.** *iScience*  
Watanabe, Y., Nakagawa, T., Akiyama, T., Nakagawa, M., Suzuki, N., Warita, H., Aoki, M., Nakayama, K.  
2020; 23 (9): 101491
- **Generation of an ALS human iPSC line KEIOi001-A from peripheral blood of a Charcot disease-affected patient carrying TARDBP p.N345K heterozygous SNP mutation.** *Stem cell research*  
Leventoux, N., Morimoto, S., Hara, K., Nakamura, S., Ozawa, F., Mitsuzawa, S., Akiyama, T., Nishiyama, A., Suzuki, N., Warita, H., Aoki, M., Okano, H.  
2020; 47: 101896
- **AMPK Complex Activation Promotes Sarcolemmal Repair in Dysferlinopathy.** *Molecular therapy : the journal of the American Society of Gene Therapy*  
Ono, H., Suzuki, N., Kanno, S. I., Kawahara, G., Izumi, R., Takahashi, T., Kitajima, Y., Osana, S., Nakamura, N., Akiyama, T., Ikeda, K., Shijo, T., Mitsuzawa, et al  
2020; 28 (4): 1133-1153
- **Omics Approach to Axonal Dysfunction of Motor Neurons in Amyotrophic Lateral Sclerosis (ALS).** *Frontiers in neuroscience*  
Suzuki, N., Akiyama, T., Warita, H., Aoki, M.  
2020; 14: 194
- **Extracellular #-synuclein enters dopaminergic cells by modulating flotillin-1-assisted dopamine transporter endocytosis.** *FASEB journal : official publication of the Federation of American Societies for Experimental Biology*  
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2019; 33 (9): 10240-10256
- **Aberrant axon branching via Fos-B dysregulation in FUS-ALS motor neurons.** *EBioMedicine*  
Akiyama, T., Suzuki, N., Ishikawa, M., Fujimori, K., Sone, T., Kawada, J., Funayama, R., Fujishima, F., Mitsuzawa, S., Ikeda, K., Ono, H., Shijo, T., Osana, et al  
2019; 45: 362-378
- **Modeling sporadic ALS in iPSC-derived motor neurons identifies a potential therapeutic agent.** *Nature medicine*  
Fujimori, K., Ishikawa, M., Otomo, A., Atsuta, N., Nakamura, R., Akiyama, T., Hadano, S., Aoki, M., Saya, H., Sobue, G., Okano, H.  
2018; 24 (10): 1579-1589
- **Antagonizing bone morphogenetic protein 4 attenuates disease progression in a rat model of amyotrophic lateral sclerosis.** *Experimental neurology*  
Shijo, T., Warita, H., Suzuki, N., Ikeda, K., Mitsuzawa, S., Akiyama, T., Ono, H., Nishiyama, A., Izumi, R., Kitajima, Y., Aoki, M.  
2018; 307: 164-179
- **TARDBP p.G376D mutation, found in rapid progressive familial ALS, induces mislocalization of TDP-43.** *eNeurologicalSci*  
Mitsuzawa, S., Akiyama, T., Nishiyama, A., Suzuki, N., Kato, M., Warita, H., Izumi, R., Osana, S., Koyama, S., Kato, T., Suzuki, Y., Aoki, M.  
2018; 11: 20-22
- **Aberrant astrocytic expression of chondroitin sulfate proteoglycan receptors in a rat model of amyotrophic lateral sclerosis.** *Journal of neuroscience research*  
Shijo, T., Warita, H., Suzuki, N., Kitajima, Y., Ikeda, K., Akiyama, T., Ono, H., Mitsuzawa, S., Nishiyama, A., Izumi, R., Aoki, M.  
2018; 96 (2): 222-233
- **Comprehensive targeted next-generation sequencing in Japanese familial amyotrophic lateral sclerosis.** *Neurobiology of aging*  
Nishiyama, A., Niihori, T., Warita, H., Izumi, R., Akiyama, T., Kato, M., Suzuki, N., Aoki, Y., Aoki, M.  
2017; 53: 194.e1-194.e8
- **Prominent sensory involvement in a case of familial amyotrophic lateral sclerosis carrying the L8V SOD1 mutation** *CLINICAL NEUROLOGY AND NEUROSURGERY*  
Nishiyama, A., Warita, H., Takahashi, T., Suzuki, N., Nishiyama, S., Tano, O., Akiyama, T., Watanabe, Y., Takahashi, K., Kuroda, H., Kato, M., Tateyama, M., Niihori, et al

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- **Genotype-phenotype relationships in familial amyotrophic lateral sclerosis with FUS/TLS mutations in Japan.** *Muscle & nerve*  
Akiyama, T., Warita, H., Kato, M., Nishiyama, A., Izumi, R., Ikeda, C., Kamada, M., Suzuki, N., Aoki, M.  
2016; 54 (3): 398-404
- **Establishment of In Vitro FUS-Associated Familial Amyotrophic Lateral Sclerosis Model Using Human Induced Pluripotent Stem Cells.** *Stem cell reports*  
Ichiyanagi, N., Fujimori, K., Yano, M., Ishihara-Fujisaki, C., Sone, T., Akiyama, T., Okada, Y., Akamatsu, W., Matsumoto, T., Ishikawa, M., Nishimoto, Y.,  
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- **FALS with FUS mutation in Japan, with early onset, rapid progress and basophilic inclusion (vol 55, pg 252, 2010)** *JOURNAL OF HUMAN GENETICS*  
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- **Neuronal representation of task performance in the medial frontal cortex undergoes dynamic alterations dependent upon the demand for volitional control of action** *EXPERIMENTAL BRAIN RESEARCH*  
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2013; 229 (3): 395-405
- **Neuronal activity in the primate dorsomedial prefrontal cortex contributes to strategic selection of response tactics.** *Proceedings of the National Academy of Sciences of the United States of America*  
Matsuzaka, Y., Akiyama, T., Tanji, J., Mushiake, H.  
2012; 109 (12): 4633-8
- **Continuous administration of poloxamer 188 reduces overload-induced muscular atrophy in dysferlin-deficient SJL mice** *NEUROSCIENCE RESEARCH*  
Suzuki, N., Akiyama, T., Takahashi, T., Komuro, H., Warita, H., Tateyama, M., Itoyama, Y., Aoki, M.  
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