Stanford

# Julien COUTHOUIS

Basic Life Res Scientist, Genetics

### SUPERVISORS

- Aaron Gitler

## Bio

### HONORS AND AWARDS

- Postdoctoral Fellowship in Aging Research Program, Ellison Medical Foundation/AFAR (2011-2012)

### EDUCATION AND CERTIFICATIONS

- PhD, Université Bordeaux II, France , Genetics (2008)

## Publications

### PUBLICATIONS

- **LRRK2 modifies alpha-syn pathology and spread in mouse models and human neurons** *ACTA NEUROPATHOLOGICA*
  Bieri, G., Brahic, M., Bousset, L., Couthouis, J., Kramer, N. J., Ma, R., Nakayama, L., Monbureau, M., Defensor, E., Schuele, B., Shamloo, M., Melki, R., Gitler, et al
  2019; 137 (6): 961–80

- **Variants in KIAA0825 underlie autosomal recessive postaxial polydactyly** *HUMAN GENETICS*
  Ullah, I., Kakar, N., Schrauwen, I., Hussain, S., Chakchouk, I., Liaqat, K., Acharya, A., Wasif, N., Santos-Cortez, R. P., Khan, S., Aziz, A., Lee, K., Couthouis, et al
  2019; 138 (6): 593–600

- **Variants in KIAA0825 underlie autosomal recessive postaxial polydactyly.** *Human genetics*
  Ullah, I., Kakar, N., Schrauwen, I., Hussain, S., Chakchouk, I., Liaqat, K., Acharya, A., Wasif, N., Santos-Cortez, R. L., Khan, S., Aziz, A., Lee, K., Couthouis, et al
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- **LRRK2 modifies alpha-syn pathology and spread in mouse models and human neurons.** *Acta neuropathologica*
  Bieri, G., Brahic, M., Bousset, L., Couthouis, J., Kramer, N. J., Ma, R., Nakayama, L., Monbureau, M., Defensor, E., Schule, B., Shamloo, M., Melki, R., Gitler, et al
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- **These violent repeats have violent extends.** *Neurology. Genetics*
  Couthouis, J., Gitler, A. D.
  2018; 4 (4): e247

- **PINK1 Phosphorylates MIC60/Mitofilin to Control Structural Plasticity of Mitochondrial Crista Junctions.** *Molecular cell*
  Tsai, P. I., Lin, C. H., Hsieh, C. H., Papakyrikos, A. M., Kim, M. J., Napolioni, V., Schoor, C., Couthouis, J., Wu, R. M., Wszolek, Z. K., Winter, D., Greicius, M. D., Ross, et al
  2018

- **Genome-wide Analyses Identify KIF5A as a Novel ALS Gene.** *Neuron*
  Nicolas, A., Kenna, K. P., Renton, A. E., Ticozzi, N., Faghri, F., Chia, R., Dominov, J. A., Kenna, B. J., Nalls, M. A., Keagle, P., Rivera, A. M., van Rheenen, W., Murphy, et al
  2018; 97 (6): 1268–83.e6

- **CRISPR-Cas9 screens in human cells and primary neurons identify modifiers of C9ORF72 dipeptide-repeat-protein toxicity.** *Nature genetics*
  Kramer, N. J., Haney, M. S., Morgens, D. W., Jovi#i#, A., Couthouis, J., Li, A., Ousey, J., Ma, R., Bieri, G., Tsui, C. K., Shi, Y., Hertz, N. T., Tessier-Lavigne, et al
  2018

- **ERAD defects and the HFE-H63D variant are associated with increased risk of liver damages in Alpha 1-Antitrypsin Deficiency.** *PloS one*
  Joly, P., Vignaud, H., Di Martino, J., Ruiz, M., Garin, R., Restier, L., Belmalih, A., Marchal, C., Cullin, C., Arveiler, B., Fergelot, P., Gitler, A. D., Lachaux, et al
  2017; 12 (6): e0179369

- **Spt4 selectively regulates the expression of C9orf72 sense and antisense mutant transcripts.** *Science*
  Kramer, N. J., Carlomagno, Y., Zhang, Y., Almeida, S., Cook, C. N., Gendron, T. F., Prudencio, M., van Blitterswijk, M., Belzil, V., Couthouis, J., Paul, J. W., Goodman, L. D., Daughrity, et al
  2016; 353 (6300): 708-712

- **Exome sequencing in amyotrophic lateral sclerosis identifies risk genes and pathways** *SCIENCE*
  Cirulli, E. T., Lasseigne, B. N., Petrovski, S., Sapp, P. C., Dion, P. A., Leblond, C. S., Couthouis, J., Lu, Y., Wang, Q., Krueger, B. J., Ren, Z., Keebler, J., Han, et al
  2015; 347 (6229): 1436-1441

- **Targeted Exon Capture and Sequencing in Sporadic Amyotrophic Lateral Sclerosis** *PLOS GENETICS*
  Couthouis, J., Raphael, A. R., Daneshjou, R., Gitler, A. D.
  2014; 10 (10)

- **Congenital muscular dystrophy and generalized epilepsy caused by GMPPB mutations.** *Brain research*
  Raphael, A. R., Couthouis, J., Sakamuri, S., Siskind, C., Vogel, H., Day, J. W., Gitler, A. D.
  2014; 1575: 66-71

- **Exome sequencing identifies a DNAJB6 mutation in a family with dominantly-inherited limb-girdle muscular dystrophy.** *Neuromuscular disorders*
  Couthouis, J., Raphael, A. R., Siskind, C., Findlay, A. R., Buenrostro, J. D., Greenleaf, W. J., Vogel, H., Day, J. W., Flanigan, K. M., Gitler, A. D.
  2014; 24 (5): 431-435

- **Exome sequencing to identify de novo mutations in sporadic ALS trios.** *Nature neuroscience*
  Chesi, A., Staahl, B. T., Jovicic, A., Couthouis, J., Fasolino, M., Raphael, A. R., Yamazaki, T., Elias, L., Polak, M., Kelly, C., Williams, K. L., Fifita, J. A., Maragakis, et al
  2013; 16 (7): 851-855

- **Evaluating the role of the FUS/TLS-related gene EWSR1 in amyotrophic lateral sclerosis** *HUMAN MOLECULAR GENETICS*
  Couthouis, J., Hart, M. P., Erion, R., King, O. D., Diaz, Z., Nakaya, T., Ibrahim, F., Kim, H., Mojsilovic-Petrovic, J., Panossian, S., Kim, C. E., Frackelton, E. C., Solski, et al
  2012; 21 (13): 2899-2911

- **A yeast functional screen predicts new candidate ALS disease genes** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
  Couthouis, J., Hart, M. P., Shorter, J., DeJesus-Hernandez, M., Erion, R., Oristano, R., Liu, A. X., Ramos, D., Jethava, N., Hosangadi, D., Epstein, J., Chiang, A., Diaz, et al
  2011; 108 (52): 20881-20890

- **The toxicity of an "artificial" amyloid is related to how it interacts with membranes** *PRION*
  Couthouis, J., Marchal, C., D'Angelo, F., Berthelot, K., Cullin, C.
  2010; 4 (4): 283-291

- **Screening for Toxic Amyloid in Yeast Exemplifies the Role of Alternative Pathway Responsible for Cytotoxicity** *PLOS ONE*
  Couthouis, J., Rebora, K., Immel, F., Berthelot, K., Castroviejo, M., Cullin, C.
  2009; 4 (3)