Stanford

Rochelle Coulson

Basic Life Research Scientist, Psych/Major Laboratories and Clinical & Translational Neurosciences Incubator

Bio

INSTITUTE AFFILIATIONS

- Member, Maternal & Child Health Research Institute (MCHRI)

PROFESSIONAL EDUCATION

- Doctor of Philosophy, University of California Davis , Integrative Genetics and Genomics (2017)
- Bachelor of Science, University of California Davis , Genetics (2011)

LINKS

- Mourrain lab: http://med.stanford.edu/mourrainlab.html

Publications

PUBLICATIONS

- **Translational modulator ISRIB alleviates synaptic and behavioral phenotypes in Fragile X syndrome.** *iScience*
  Coulson, R. L., Frattini, V., Moyer, C. E., Hodges, J., Walter, P., Mourrain, P., Zuo, Y., Wang, G. X.
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- **The intersection of sleep and synaptic translation in synaptic plasticity deficits in neurodevelopmental disorders.** *Journal of comparative physiology. B, Biochemical, systemic, and environmental physiology*
  Coulson, R. L., Mourrain, P., Wang, G. X.
  2024
- **Sleep deficiency as a driver of cellular stress and damage in neurological disorders.** *Sleep medicine reviews*
  Coulson, R. L., Mourrain, P., Wang, G. X.
  2022; 63: 101616
- **Epigenomic Convergence of Neural-Immune Risk Factors in Neurodevelopmental Disorder Cortex.** *Cerebral cortex (New York, N.Y. : 1991)*
  Vogel Ciernia, A., Laufer, B. I., Hwang, H., Dunaway, K. W., Mordaunt, C. E., Coulson, R. L., Yasui, D. H., LaSalle, J. M.
  2019
- **Placental DNA methylation levels at CYP2E1 and IRS2 are associated with child outcome in a prospective autism study.** *Human molecular genetics*
  Zhu, Y., Mordaunt, C. E., Yasui, D. H., Marathe, R., Coulson, R. L., Dunaway, K. W., Jianu, J. M., Walker, C. K., Ozonoff, S., Hertz-Picciotto, I., Schmidt, R. J., LaSalle, J. M.
  2019
- **Prader-Willi locus Snord116 RNA processing requires an active endogenous allele and neuron-specific splicing by Rbfox3/NeuN.** *Human molecular genetics*
  Coulson, R. L., Powell, W. T., Yasui, D. H., Dileep, G., Resnick, J., LaSalle, J. M.
  2018

- **Cognitive deficits in the Snord116 deletion mouse model for Prader-Willi syndrome.** *Neurobiology of learning and memory*
  Adhikari, A., Copping, N. A., Onaga, B., Pride, M. C., Coulson, R. L., Yang, M., Yasui, D. H., LaSalle, J. M., Silverman, J. L.
  2018

- **Snord116-dependent diurnal rhythm of DNA methylation in mouse cortex** *NATURE COMMUNICATIONS*
  Coulson, R. L., Yasui, D. H., Dunaway, K. W., Laufer, B. I., Ciernia, A., Zhu, Y., Mordaunt, C. E., Totah, T. S., LaSalle, J. M.
  2018; 9: 1616

- **Epigenetics of Circadian Rhythms in Imprinted Neurodevelopmental Disorders.** *Progress in molecular biology and translational science*
  Coulson, R. L., LaSalle, J. M.
  2018; 157: 67-92

- **Experience-dependent neuroplasticity of the developing hypothalamus: integrative epigenomic approaches** *EPIGENETICS*
  Ciernia, A., Laufer, B., Dunaway, K. W., Mordaunt, C. E., Coulson, R. L., Totah, T. S., Stolzenberg, D. S., Frahm, J. C., Singh-Taylor, A., Baram, T. Z., LaSalle, J. M., Yasui, D. H.
  2018; 13 (3): 318–30

- **Cumulative Impact of Polychlorinated Biphenyl and Large Chromosomal Duplications on DNA Methylation, Chromatin, and Expression of Autism Candidate Genes.** *Cell reports*
  Dunaway, K. W., Islam, M. S., Coulson, R. L., Lopez, S. J., Vogel Ciernia, A., Chu, R. G., Yasui, D. H., Pessah, I. N., Lott, P., Mordaunt, C., Meguro-Horike, M., Horike, S. I., Korf, et al
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- **A PraderWilli locus lncRNA cloud modulates diurnal genes and energy expenditure** *HUMAN MOLECULAR GENETICS*
  Powell, W. T., Coulson, R. L., Crary, F. K., Wong, S. S., Ach, R. A., Tsang, P., Yamada, N., Yasui, D. H., LaSalle, J. M.
  2013; 22 (21): 4318–28

- **R-loop formation at Snord116 mediates topotecan inhibition of Ube3a-antisense and allele-specific chromatin decondensation** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
  Powell, W. T., Coulson, R. L., Gonzales, M. L., Crary, F. K., Wong, S. S., Adams, S., Ach, R. A., Tsang, P., Yamada, N., Yasui, D. H., Chedin, F., LaSalle, J. M.
  2013; 110 (34): 13938–43

- **Genome-Wide Association Mapping in Dogs Enables Identification of the Homeobox Gene, NKX2-8, as a Genetic Component of Neural Tube Defects in Humans** *PLOS GENETICS*
  Safra, N., Bassuk, A. G., Ferguson, P. J., Aguilar, M., Coulson, R. L., Thomas, N., Hitchens, P. L., Dickinson, P. J., Vernau, K. M., Wolf, Z. T., Bannasch, D. L.
  2013; 9 (7): e1003646