Stanford



Ozge Oztan, Ph.D.

Sr Res Scientist-Basic Life, Psych/Major Laboratories and Clinical & Translational Neurosciences Incubator

Bio

ACADEMIC APPOINTMENTS

- Sr Res Scientist-Basic Life, Psych/Major Laboratories and Clinical & Translational Neurosciences Incubator

LINKS

- Parker Lab: http://parkerlab.stanford.edu/

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

Autism is characterized by core social deficits but the underlying pathophysiology of these impairments are poorly understood. My research involves: 1) identifying novel biomarkers of social impairments in preclinical models and autism patients, 2) testing how epigenetic control of these biomarkers contributes to autism risk and symptom severity, and 3) investigating how these biological measures predict treatment outcomes in individuals with autism.

Publications

PUBLICATIONS

- **Vasopressin Improves Social Cognition Without Inducing Aggression in Rhesus Macaques (Macaca mulatta)**
  Talbot, C., Oztan, O., Simmons, S., Trainor, C., Ceniceros, L., Del Rosso, L., Garner, J., Capitanio, J., Parker, K.
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- **Cerebrospinal Fluid Vasopressin Concentration Is a Biomarker of Autistic Social Impairment and Hypothalamic Vasopressin Gene Expression in Humans.** *Autism research : official journal of the International Society for Autism Research*
  Oztan, O., Zhu, C., Nguyen, D. K., West, R. B., Garner, J. P., Parker, K. J.
  2026

- **Nebulized vasopressin penetrates CSF and improves social cognition without inducing aggression in a rhesus monkey model of autism.** *Proceedings of the National Academy of Sciences of the United States of America*
  Talbot, C. F., Oztan, O., Simmons, S. M., Trainor, C., Ceniceros, L. C., Nguyen, D. K., Del Rosso, L. A., Garner, J. P., Capitanio, J. P., Parker, K. J.
  2024; 121 (49): e2418635121

- **Naturally occurring low sociality in female rhesus monkeys: A tractable model for autism or not?** *Molecular autism*
  Oztan, O., Del Rosso, L. A., Simmons, S. M., Nguyen, D. K., Talbot, C. F., Capitanio, J. P., Garner, J. P., Parker, K. J.
  2024; 15 (1): 8

- **Linking oxytocin and arginine vasopressin signaling abnormalities to social behavior impairments in Prader-Willi syndrome.** *Neuroscience and biobehavioral reviews*
  Oztan, O., Zyga, O., Stafford, D. E., Parker, K. J.

2022: 104870

- **Autism-associated biomarkers: test-retest reliability and relationship to quantitative social trait variation in rhesus monkeys.** *Molecular autism*
  Oztan, O., Talbot, C. F., Argilli, E., Maness, A. C., Simmons, S. M., Mohsin, N., Del Rosso, L. A., Garner, J. P., Sherr, E. H., Capitanio, J. P., Parker, K. J.
  2021; 12 (1): 50

- **Neonatal CSF vasopressin concentration predicts later medical record diagnoses of autism spectrum disorder.** *Proceedings of the National Academy of Sciences of the United States of America*
  Oztan, O. n., Garner, J. P., Constantino, J. N., Parker, K. J.
  2020

- **Blood oxytocin concentration positively predicts contagious yawning behavior in children with autism spectrum disorder.** *Autism research : official journal of the International Society for Autism Research*
  Mariscal, M. G., Oztan, O., Rose, S. M., Libove, R. A., Jackson, L. P., Sumiyoshi, R. D., Trujillo, T. H., Carson, D. S., Phillips, J. M., Garner, J. P., Hardan, A. Y., Parker, K. J.
  2019

- **A randomized placebo-controlled pilot trial shows that intranasal vasopressin improves social deficits in children with autism** *SCIENCE TRANSLATIONAL MEDICINE*
  Parker, K. J., Oztan, O., Libove, R. A., Mohsin, N., Karhson, D. S., Sumiyoshi, R. D., Summers, J. E., Hinman, K. E., Motonaga, K. S., Phillips, J. M., Carson, D. S., Fung, L. K., Garner, et al
  2019; 11 (491)

- **Cerebrospinal fluid vasopressin and symptom severity in children with autism.** *Annals of neurology*
  Oztan, O., Garner, J. P., Partap, S., Sherr, E. H., Hardan, A. Y., Farmer, C., Thurm, A., Swedo, S. E., Parker, K. J.
  2018

- **Arginine vasopressin in cerebrospinal fluid is a marker of sociality in nonhuman primates** *SCIENCE TRANSLATIONAL MEDICINE*
  Parker, K. J., Garner, J. P., Oztan, O., Tarara, E. R., Li, J., Sclafani, V., Del Rosso, L. A., Chun, K., Berquist, S. W., Chez, M. G., Partap, S., Hardan, A. Y., Sherr, et al
  2018; 10 (439)

- **Biomarker Discovery for Social Impairments: Translation From a Novel Monkey Model to Patients With Autism**
  Parker, K., Garner, J., Oztan, O., Tarara, E., Li, J., Sclafani, V., Del Rosso, L., Chun, K., Berquist, S., Chez, M., Partap, S., Hardan, A., Sherr, et al
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  Oztan, O. n., Jackson, L. P., Libove, R. A., Sumiyoshi, R. D., Phillips, J. M., Garner, J. P., Hardan, A. Y., Parker, K. J.
  2017; 89: 39–45

- **Intranasal oxytocin treatment for social deficits and biomarkers of response in children with autism.** *Proceedings of the National Academy of Sciences*
  Parker, K. J., Oztan, O., Libove, R. A., Sumiyoshi, R. D., Jackson, L. P., Karhson, D. S., Summers, J. E., Hinman, K. E., Motonaga, K. S., Phillips, J. M., Carson, D. S., Garner, J. P., Hardan, et al
  2017; 114 (30): 8119-8124

- **Preference for novel faces in male infant monkeys predicts cerebrospinal fluid oxytocin concentrations later in life.** *Scientific Reports*
  Madrid, J. E., Oztan, O., Sclafani, V., Del Rosso, L. A., Calonder, L. A., Chun, K., Capitanio, J. P., Garner, J. P., Parker, K. J.
  2017: 12935

- **Hippocampal Y2 receptor-mediated mossy fiber plasticity is implicated in nicotine abstinence-related social anxiety-like behavior in an outbred rat model of the novelty-seeking phenotype.** *Pharmacology, biochemistry, and behavior*
  Aydin, C., Oztan, O., Isgor, C.
  2014; 125: 48-54

- **Nicotine-induced anxiety-like behavior in a rat model of the novelty-seeking phenotype is associated with long-lasting neuropeptidergic and neuroplastic adaptations in the amygdala: Effects of the cannabinoid receptor 1 antagonist AM251** *NEUROPHARMACOLOGY*
  Aydin, C., Oztan, O., Isgor, C.
  2012; 63 (8): 1335-1345

- **Long-term effects of juvenile nicotine exposure on abstinence-related social anxiety-like behavior and amygdalar cannabinoid receptor 1 (CB1R) mRNA expression in the novelty-seeking phenotype** *BEHAVIOURAL BRAIN RESEARCH*
  Aydin, C., Oztan, O., Isgor, C.
  2012; 228 (1): 236-239

- **CHRONIC VARIABLE PHYSICAL STRESS DURING THE PERIPUBERTAL-JUVENILE PERIOD CAUSES DIFFERENTIAL DEPRESSIVE AND ANXIOGENIC EFFECTS IN THE NOVELTY-SEEKING PHENOTYPE: FUNCTIONAL IMPLICATIONS FOR HIPPOCAMPAL AND AMYGDALAR BRAIN-DERIVED NEUROTROPHIC FACTOR AND THE MOSSY FIBRE PLASTICITY** *NEUROSCIENCE*
  Oztan, O., Aydin, C., Isgor, C.
  2011; 192: 334-344

- **Effects of a selective Y2R antagonist, JNJ-31020028, on nicotine abstinence-related social anxiety-like behavior, neuropeptide Y and corticotropin releasing factor mRNA levels in the novelty-seeking phenotype** *BEHAVIOURAL BRAIN RESEARCH*
  Aydin, C., Oztan, O., Isgor, C.
  2011; 222 (2): 332-341

- **Stressful environmental and social stimulation in adolescence causes antidepressant-like effects associated with epigenetic induction of the hippocampal BDNF and mossy fibre sprouting in the novelty-seeking phenotype** *NEUROSCIENCE LETTERS*
  Oztan, O., Aydin, C., Isgor, C.
  2011; 501 (2): 107-111

- **Vulnerability to nicotine abstinence-related social anxiety-like behavior: Molecular correlates in neuropeptide Y, Y2 receptor and corticotropin releasing factor** *NEUROSCIENCE LETTERS*
  Aydin, C., Oztan, O., Isgor, C.
  2011; 490 (3): 220-225

- **Effects of a cannabinoid receptor (CB) 1 antagonist AM251 on behavioral sensitization to nicotine in a rat model of novelty-seeking behavior: correlation with hippocampal 5HT** *PSYCHOPHARMACOLOGY*
  Bhatti, A. S., Aydin, C., Oztan, O., Ma, Z., Hall, P., Tao, R., Isgor, C.
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