

JONATHAN CACHAT

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EDUCATION

- 2004 - **Denison University** (Granville, OH)
2008 Social Neuroscience, B.S – Individually Designed Major
- Thesis: “The Social Neuroscience of Sex; Human Male-Female Similarities and Differences from Neurological Biochemistry to Social Behavior.” – Dr. Susan Kennedy, Dr. Kristina Mead, Dr. Frank Hassebrock
- 2009 - **Tulane University** (New Orleans, LA)
present Neuroscience Graduate Program, PhD Student
- A.V. Kalueff Lab, Dept. of Pharmacology & Neuroscience Program – www.kaluefflab.com

RESEARCH EXPERIENCE

Post-Baccalaureate Research Assistant, A.V. Kalueff Lab– Jan 2009 to Aug 2009
Dept. of Pharmacology, Tulane University Medical School (New Orleans, LA)

Research Assistant, Center for Cognitive and Social Neuroscience – Summer 2007
John T. Cacioppo & Adam Waytz, University of Chicago (Chicago, IL)

Digital Media Arts-Production – Summer 2004
Northwestern University (Evanston, IL)

- Final Project: *Progression*

PEER-REVIEWED ARTICLES

1. Egan R, Bergner C, Hart R, **Cachat J**, Canavello P, Elegante M, Elkhayat S, Bartels B, Tien A, Tien D, Mohnot S, Beeson E, Glasgow E, Amri H, Zukowska Z, Kalueff A. Understanding behavioral and physiological phenotypes of stress and anxiety in zebrafish. Behav Brain Res 2009; 205: 38-44.
2. Tuohimaa P, Keisala T, **Cachat J**, Kalueff A. Vitamin D, nervous system and aging. Psychoneuroendocrinology 2009, 34S: S278-S286.
3. LaPorte J, Egan R, Hart P, Bergner C, **Cachat J**, Canavello P, Kalueff AV. Qui non proficit, deficit: Experimental models for ‘integrative’ research of affective disorders. J Affect Disorders 2010; 121: 1-9.
4. **Cachat J**, Canavello P, Elegante M, Bartels B, Hart P, Bergner C, Egan R, Duncan A, Tien D, Chung A, Wong K, Goodspeed J, Grimes C, Elkhayat S, Suci C, Rosenberg M, Chung K, Kadri F, Roy S, Gaikwad S, Stewart A, Zapolsky I, Gilder T, Mohnot S, Beeson E, Tan J, Amri H, Zukowska A, Glasgow E, Soignier R, Kalueff A. Modeling withdrawal syndrome in zebrafish. Behav Brain Res 2010; 208 (2): 371-376.
5. Wong K, Elegante M, Bartels B, Elkhayat S, Tien D, Roy S, Goodspeed J, Suci C, Tan J, Grimes C, Chung A, Rosenberg M, Gaikwad S, Duncan A, Jackson A, Kadri F, Chung K, Stewart A, Gilder T, Beeson E, Zapolsky I, Wu N, **Cachat J**, Kalueff A. Analyzing habituation responses to novelty in zebrafish (Danio rerio). Behav Brain Res 2010; 208: 450-457.
6. Denmark A, Tien D, Wong K, Chung A, **Cachat J**, Goodspeed J, Grimes C, Elegante M, Suci C, Elkhayat S, Bartels B, Jackson A, Rosenberg M, Chung K, Badani H, Kadri F, Tan J, Roy S, Gaikwad S, Stewart A, Zapolsky I, Gilder T, Kalueff A. The effects of chronic social defeat stress on mouse self-grooming behavior and its patterning. Behav Brain Res 2010; 208 (2): 553-559.
7. Stewart A, Kadri F, DiLeo J, Chung K, **Cachat J**, Goodspeed J, Suci C, Roy S, Gaikwad S, Wong K, Elegante M, Elkhayat S, Wu N, Gilder T, Tien D, Grossman L, Tan J, Denmark A, Bartels B, Frank K, Beeson E, Kalueff A. The developing utility of zebrafish in modeling neurobehavioral disorders. Int J. ComparPsychol, 2010; 23: 104-121.

BOOKS

1. *Zebrafish Models in Neurobehavioral Research*. Kalueff AV, **Cachat J** (editors), Humana Press, NYC 2010, in press.
2. *Zebrafish Neurobehavioral Protocols*. Kalueff AV, **Cachat J** (editors), Humana Press, NYC 2010, in press.

BOOK CHAPTERS

1. Canavello P, **Cachat J**, Beeson E, Laffoon A, Grimes C, Haymore W, Elegante M, Bartels B, Hart P, Elkhayat S, Tien D, Mohnot S, Amri H, Kalueff AV. Measuring endocrine (cortisol) responses of zebrafish to stress. In: *Zebrafish Neurobehavioral Protocols*. Eds: AV Kalueff and JM Cachat. Humana Press, 2010, in press.
2. Canavello P, **Cachat J**, Elkhayat S, Bartels B, Hart P, Elegante M, Beeson E, Laffoon A, Haymore W, Tien D, Tien A, Mohnot S, Kalueff AV. Video-aided analysis of zebrafish locomotion and anxiety-related behavioral responses. In: *Zebrafish Neurobehavioral Protocols*. Eds: AV Kalueff and JM Cachat. Humana Press, 2010, in press.
3. **Cachat J**, Canavello P, Elegante M, Bartels B, Elkhayat S, Hart P, Tien A, Tien D, Beeson E, Mohnot S, Laffoon A, Haymore W, Kalueff AV. Modeling stress and anxiety in zebrafish. In: *Zebrafish Models in Neurobehavioral Research*. Eds: AV Kalueff and JM Cachat. Cambridge University Press, UK 2010, in press.

ABSTRACTS & PRESENTATIONS

1. **Cachat J**. "Social Neuroscience of Sex; Human Male-Female Similarities and Differences from Neurological Biochemistry to Social Behavior." – Psychology Dept. Symposium – Denison University - May 2008.
2. Hart P, Bergner C, Egan R, **Cachat J**, Canavello P, Armi H, Glasgow E, Zukowska Z, Kalueff AV. "The Correlation of Neural and Physiological Endophenotypes in Zebrafish Models of Stress." 20th Annual Tulane Health Sciences Research Days, New Orleans, LA. Feb 2009.
3. Hart P, Bergner C, Egan R, **Cachat J**, Canavello P, Bartels B, Beeson E, Elkhayat S, Elegante M, Mohnot S, Tien D, Tien A, Amri H, Glasgow E, Zukowska Z, Kalueff A. "Zebrafish (*Danio rerio*) models of drug abuse and anxiety." LSU Annual Neuroscience Retreat, New Orleans, LA. March 2009.
4. Canavello P, **Cachat J**, Bergner C, Egan R, Hart P, Bartels B, Beeson E, Elkhayat S, Elegante M, Mohnot S, Tien A, Tien D, Amri H, Glasgow E, Zukowska Z, Kalueff AV. "Behavioral Pharmacology and Acute Stress Responses in Zebrafish." 12th International Neuroscience "Stress and Behavior" Conference, St. Petersburg, Russia. May, 2009.
5. **Cachat J**, Canavello P, Bergner C, Egan R, Hart P, Bartels B, Beeson E, Elkhayat S, Elegante M, Mohnot S, Tien D, Tien A, Amri H, Glasgow E, Zukowska A, Soignier R, Kalueff AV. "Modeling Substance Withdrawal Syndrome in Zebrafish (*Danio Rerio*)." 12th International "Stress and Behavior" Conference, St. Petersburg, Russia. May, 2009.
6. Bergner C, Hart P, Egan R, Canavello P, **Cachat J**, Armi H, Glasgow E, Zukowska Z, Kalueff AV. "Neural and Physiological Phenotypes in Zebrafish Models of Stress." 9th World Congress of Biological Psychiatry, Paris, France. June 2009.
7. Tien D, Canavello P, **Cachat J**, Egan R, Hart P, Bergner C, Elegante M, Mohnot S, Elkhayat S, Bartels B, Tien A, Beeson E, Kalueff AV, Soignier D. "Visualizing and interpreting drug-evoked anxiety behaviors in Zebrafish." Society for Neuroscience Conference 2009, Chicago, IL. October, 2009.
8. **Cachat J**, Canavello P, Bergner C, Egan R, Hart P, Bartels B, Beeson E, Elkhayat S, Elegante M, Mohnot S, Tien D, Tien A, Glasgow H, Zukowska Z, Amri H, Soignier D, Kalueff A. "Modeling Withdrawal Anxiety in Zebrafish (*Danio rerio*)." Society for Neuroscience Conference 2009, Chicago, IL. October, 2009.

9. **Cachat J**, Elegante M, Bartels B, Elkhayat S, Wong K, Tien D, Tan J, Suci C, Goodspeed J, Roy S, Grimes C, Rosenberg M, Jackson A, Chung A, Gaikwad S, Duncan A, Kadri F, Chung K, Stewart A, Gilder T, Zapolsky I, Kalueff A. "Behavioral Phenotypes of Anxiety in Zebrafish." Behavioral Sciences Symposium, Russellville, AR. November 2009.
10. **Cachat J**, Goodspeed J, Suci C, Roy S, Beeson E, Elkhayat S, Elegante M, Grimes C, Wong K, Denmark A, Stewart A, Wu N, Kadri F, Gaikwad S, Grossman L, Chung K, Frank K, Bartels B, Tien D, Gilder T, Tan J, Chang K, DiLeo J, Kalueff A. "Modulation of Zebrafish Behavior and Physiology by Lysergic Acid Diethylamide (LSD)." Tulane University Health Sciences Research Days 2010, New Orleans, LA. March, 2010.
11. Goodspeed J, **Cachat J**, Beeson E, Bartels B, Elegante M, Elkhayat S, Tien D, Demark A, Grimes C, Wong K, Roy S, Kadri F, Gaikwad S, Suci C, Tan J, Chung K, Stewart A, Gilder T, Wu N, DiLeo J, Grossman L, Kalueff A. "Endocrine (cortisol) endophenotypes of drug withdrawal in zebrafish (*Danio rerio*)." Behavior, Biology and Chemistry: Translational Research in Addiction Conference, San Antonio, TX. March, 2010.
12. Tien D, Duncan A, Chung A, Wong K, Tan J, **Cachat J**, Goodspeed J, Grimes C, Elegante M, Suci C, Elkhayat S, Jackson A, Rosenberg M, Chung K, Badani H, Kadri F, Roy S, Gaikwad S, Gilder T, Zapolsky I, Kalueff A. "The Effects of Chronic Social Defeat Stress on Mouse Grooming Behavior Patterning." Experimental Biology 2010, Anaheim, CA. April, 2010.

AWARDS & PATENTS

- NSF Graduate Research Fellowship Program – Honorable Mention – April, 2010.
- Graduate Studies Student Association Travel Award for SfN 2010 – Tulane University – Oct, 2009.
- Award of Distinction – Dialectical Model of Human Nature – Denison University, Dept. Of Philosophy – May, 2008.
- Dialectical Model of Human Nature – USA Patent – June, 2008.

PRESENTATIONS & LECTURES

- Introduction to Phenotyping, Introduction to Biopsychology. Lectures at 2nd International Stress and Behavior Summer School, Riga, Latvia – May, 2009.
- Psychedelic Zebrafish: the effects of LSD on zebrafish behavior and physiology. Presentation at Neuroscience Program Retreat, Tulane University - March, 2010.
- Advances in Zebrafish Behavioral Quantification. Lecture at Newcomb College, Tulane University – Feb, 2010.
- Three-Dimensional Reconstruction of Zebrafish Emotional Behavior. Presentation at 14th International Stress and Behavior Conference, St. Petersburg, Russia – May, 2010.

PROFESSIONAL SOCIETIES

- Society for Neuroscience – Student Membership - June, 2009.
- ASPET – Student Membership – June, 2009.

MENTORING STUDENTS

2009-2010 Mentoring of 10 undergraduates, 18 masters students and 2 high school students (4 of which were minority students).

Last Revision: 4/2010