

Peter C. Hart, BA

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Education:

Fall 2004-Spring 2008 University of Illinois at Chicago, BA in Psychology, Major GPA of 3.67
Fall 2000-Spring 2004 High school diploma, York Community High School
GRE Score 1100 cumulative

Employment:

- May 09 – Dec 09** **Volunteer Research Assistant, University of Illinois at Chicago, College of Medicine Research, Chicago, IL**
- Drafted the protocol and experimental design to validate 5HT-4R KO mice as an animal model of Alzheimer's Disease
- July 09 – July 10** **Private Tutor, Self-employed, Chicago, IL**
- Apr 09 – July 09** **Part time Research Assistant, Tulane University Medical Center Department of Pharmacology, New Orleans, LA**
- Presented at the Experimental Biology 2009 Conference on a Zebrafish model of stress and anxiety
 - Lectured at the ISBS conference in St. Petersburg, Russia, on a Zebrafish model of stress and antidepressant action; and prepared the conference report
 - Correspondence with TUMC research assistants
- Jan 08 – Apr 09** **Full time Research Assistant, Tulane University Medical Center Department of Pharmacology, New Orleans, LA**
- Interviewing prospective research students for the laboratory
 - Training and supervising undergraduate and post-baccalaureate research students in basic science techniques and research skills
 - Maintaining an inventory of laboratory equipment, reagents, and research specimen; ordering all lab supplies
 - Designing and implementing experiments using animal (mouse, zebrafish) models of stress, anxiety, depression, and drug treatment
 - Experimental data collection and analysis
- Jul 08 - Dec 08** **Full time Research Assistant, Georgetown University Department of Physiology and Biophysics, Washington, DC**
- Designing and implementing experiments using animal (mouse, zebrafish) models of stress, anxiety, depression, and drug treatment
 - Conducted experiments independently following correspondence
 - Experimental data collection and analysis
- May 08 - Jul 08** **Service Clerk, Lions Club International, Oakbrook, Illinois**
- Customer service
 - Data entry and maintaining databases

Research Skills:

- **Gross brain dissection (sheep, mouse, zebrafish, dogfish shark)**
- **DNA isolation and RNA purification**
- **Genotyping**
- **Reverse Transcription Polymerase Chain Reaction**
- **Enzyme-Linked Immunosorbent Assay [for salivary cortisol]**
- **Nanospectrophotometry**
- **Basic Lab Skills:**
 - Micro-pipetting
 - Centrifugation
 - Vortexing
 - Gel electrophoresis
 - Microscopy (for c.elegans)
 - Sample collection and storage
- **Mouse (*mus musculus*) model:**
 - Husbandry (feeding, sexing, housing, anesthesia), behavioral phenotyping
 - Drug administration, blood sampling
 - Euthanasia, Dissection (gross brain, systemic organs)
 - Behavioral observation of anxiety and depression
 - Open field test, Tail suspension test, Forced swim test
- **Zebrafish (*danio rerio*) model:**
 - Husbandry (feeding, monitoring tank equipment, raising, anesthesia)
 - Behavioral observation for measures of stress and anxiety
 - Novel Tank Diving Test
 - Euthanasia, Brain Dissection (with microscope or free hand)
- **Roundworm (*caenorhabditis elegans*) model:**
 - Husbandry (preparation of media, feeding, raising)
 - Microscopy recording
- **Statistical analysis**
- **Microsoft Office 2007 (Word, Excel, Powerpoint)**
- **Adobe Photoshop**

Publications:

Hart, P.C., Bergner, C.L., Smolinsky, A.N., Dufour, B.D., Egan, R.J., and Kalueff, A.V. “Experimental models of anxiety for drug discovery and brain research.” In: Mouse Models for Drug Discovery. Eds. G. Proetzel and M. Wiles. Humana Press. 2009, in press.

Hart, P.C., Bergner, C.L., Dufour, B.D., Smolinsky, A.N., Egan, R.J., LaPorte, J.L., and Kalueff, A.V. “Analysis of behavioral perseveration in experimental animal models.” In: Translational Neuroscience and its Advancement of Animal Research Ethics. Eds. J.E. Warnick and A.V. Kalueff. Nova Science. 2009, in press.

Egan, R.J., Bergner, C.L., Hart, P.C., Cachat, J.M., Canavello, P.R., Glasgow, E., Amri, H., Zukowska, Z., and Kalueff, A.V. Understanding behavioral and physiological phenotypes of stress and anxiety in zebrafish. Behavioral Brain Research. 2009.

Cachat, J., Canavello, P., Elegante, M., Bartels, B., Hart, P., Bergner, C., Egan, R., Duncan, R., Tien, D., Chung, A., Wong, K., Goodspeed, J., Tan, 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., Amri, H., Zukowska, Z., Soignier, R., and Kalueff, A. Modeling withdrawal syndrome in zebrafish. Behavioral Brain Research. 2009.

Egan, R.J., Smolinsky, A.N., Bergner, C.L., LaPorte, J.L., Hart, P.C., and Kalueff A.V. “Hybridizing experimental paradigms to increase high throughput of neurobehavioral data.” In: Translational Neuroscience in Animal Research: Advancements, Challenges, and Research Ethics. Eds. J.E. Warnick and A.V. Kalueff. Nova Science. 2009, in press.

Bergner, C.L., Smolinsky, A.N., Hart, P.C., Dufour, B.D., Egan, R.J., and Kalueff, A.V. “Mouse models for studying depression-like states and antidepressant drugs.” In: Mouse Models for Drug Discovery. Eds. G. Proetzel and M. Wiles. Humana Press. 2009, in press.

Bergner, C.L., Smolinsky, A.N., Dufour, B.D., LaPorte, J.L., Hart, P.C., Egan, R.J., and Kalueff, A.V. “Phenotyping and genetics of rodent grooming and barbering: utility for experimental neuroscience research.” In: Neurobiology of Grooming Behavior. Eds. A.V. Kalueff, J.L. LaPorte, and C.L. Bergner. Cambridge University Press. 2009, in press.

Smolinsky, A.N., Bergner, C.L., Hart, P.C., Egan, R.J., and Kalueff, A.V. “The utility of genetically modified animals in modeling OCD-spectrum disorders.” In: Mutant and Transgenic Tools in Modeling Brain Disorders. Eds. A.V. Kalueff and A.N. Smolinsky. Humana Press. 2009, in press.

LaPorte, J.L., Egan, R.J., Hart, P.C., Bergner, C.L., Cachat, J.M., Canavello, P.R., and Kalueff, A.V. Qui non proficit, deficit: experimental models for ‘integrative’ research of affective disorders. Journal of Affective Disorders. 2010.

Presentations:

Hart, P.C., Bergner, C.L., Egan, R.J., LaPorte, J.L., Smolinsky, A.N., Zukowska, Z., and Kalueff, A.V. The utility of zebrafish in stress research. Experimental Biology 2009. New Orleans, LA. (Hart, P.C. presented on April 20, 2009).

Egan, R.J., Bergner, C.L., Cachat, J.M., Canavello, P.R., Hart, P.C., Amri, H., Glasgow, E., Zukowska, Z., and Kalueff, A.V. Zebrafish models of anxiety and depression and antidepressant action. 12th Multidisciplinary International Neuroscience and Biological Psychiatry “Stress and Behavior” Conference 2009, St. Petersburg, Russia. (Hart, P.C. presented on May 6, 2009).

Kalueff, A.V., Hart, P.C., Smolinsky, A.N., Bergner, C.L., LaPorte, J.L., and Egan, R.J. Macro- and micro-behaviors in animal modeling of neuropsychiatric disorders. Society for Neuroscience 2008 Satellite symposium, Washington, DC, Nov 17, 2008.

Hart, P.C., Bergner, C.L., Egan, R.J., Cachat, J.M., Canavello, P.R., Amri, H., Glasgow, E., Zukowska, Z., and Kalueff A.V. The correlation of neural and physiological endophenotypes in zebrafish models of stress. Tulane Health Sciences Research Days, February 2009. New Orleans, LA.

Abstracts:

Hart, P.C., Bergner, C.L., Egan, R.J., Cachat, J.M., Canavello, P.R., Amri, H., Glasgow, E., Zukowska, Z., and Kalueff, A.V. Zebrafish (*Danio rerio*) in neurobehavioral research: new models, new applications, new challenges. Proceedings of 12th Multidisciplinary International Neuroscience and Biological Psychiatry "Stress and Behavior" Conference, St. Petersburg, May 16-20, 2009.

Canavello, P.R., Cachat, J.M., Bergner, C.L., Egan, R.J., Hart, P.C., Bartels, B., Beeson, E., Elkhayat, S., Elegante, M., Mohnot, S., Tien, A., Tien, D., Amri, H., Glasgow, E., Zukowska, Z., and Kalueff, A.V. Behavioral pharmacology and acute stress responses in zebrafish. Proceedings of 12th Multidisciplinary International Neuroscience and Biological Psychiatry "Stress and Behavior" Conference, St. Petersburg, May 16-20, 2009.

Cachat, J.M., Canavello, P.R., Bergner, C.L., Egan, R.J., Hart, P.C., Bartels, B., Beeson, E., Elkhayat, S., Elegante, M., Mohnot, S., Tien, D., Tien, A., Glasgow, E., Zukowska, Z., Amri, H., Soignier, D., and Kalueff, A.V. Modeling withdrawal anxiety in Zebrafish (*Danio rerio*). Society for Neuroscience 2009, Chicago, IL.

Bergner, C.L., Hart, P.C., Egan, R.J., Canavello, P.R., Cachat, J.M., Amri, H., Glasgow, E., Zukowska, Z., and Kalueff, A.V. Neural and physiological phenotypes in zebrafish models of stress. 9th World Congress of Biological Psychiatry, July 2009. Paris, France.

References:

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