

## **Nancy R. Capriles, Ph. D.**

Assistant Professor  
Behavioral & Social Sciences  
Kentucky State University  
400 East Main Street, Frankfort, KY 40601  
Phone: (502) 597-5920  
[nancy.capriles@kysu.edu](mailto:nancy.capriles@kysu.edu)

### **Education and Professional Experience**

- 2014- present: Assistant Professor, Kentucky State University
- 2012-2014: Visiting Professor, Kentucky State University
- Jan-Jul 2012: Research Technologist II, Neuroscience Collaborative Center, Frazier Rehab Institute, University of Louisville, Louisville, Kentucky.
- 2009-2011: Research Lab Specialist Senior, Molecular and Behavioral Neuroscience Institute, University of Michigan, Ann Arbor, Michigan.
- 2002-2009: Postdoctoral Research Fellow, Molecular and Behavioral Neuroscience Institute, University of Michigan, Ann Arbor, Michigan. Advisor: Dr. Huda Akil
- 2000-2002: Postdoctoral Research Fellow, Center for Studies in Behavioral Neurobiology, Concordia University, Montreal, QC, Canada. Advisor: Dr. Jane Stewart.
- 1995-2000: Ph. D. in Psychology, National University of Cordoba, Argentina. *Dissertation: Sensitization to amphetamine-and opiates-induced stimulating and rewarding effects following acute and chronic restraint stress.*  
Mentor: Dr. Liliana Marina Cancela
- 1987-1992: Licentiate in Psychology, National University of Cordoba, Argentina. *Honor Thesis: Role of the Pavlovian conditioning processes in the development of tolerance to alcohol during early ontogeny.*  
Mentor: Dr. Juan Carlos Molina

### **Honors and Fellowships**

- 03-05/2000: Fellowship from Secretary of Planning for Prevention of Drug Dependence, Buenos Aires, Argentina.
- 1997-1999: Senior fellowship from National Research Council (CONICET), Cordoba, Argentina.
- 1995-1997: Junior fellowship from National Research Council (CONICET), Cordoba, Argentina.
- 1995: University Annual Prize, National University of Cordoba, Argentina.

## Professional Memberships

- Society for Neuroscience (S.F.N.), Washington, United States
- Argentine Society of Experimental Pharmacology (SAFE)
- Kentucky Academy of Science (K.A.S.)
- Faculty for Undergraduate Neuroscience (F.U.N.)
- The Greater Louisville International Professionals (G.L.I.P.)

## Research and Teaching Interests

Behavioral Neuroscience, Neuropsychopharmacology, Individual Differences in Addiction and Drug Abuse, Neurobiology of Craving and Relapse, Event-related Potentials, Learning and Memory.

## Grants

### Present and active

2014 COGNISION System Grant Program (Neuronetrix)

Kentucky State University, Div. of Behavioral and Social Sciences

“Effects of Energy Drinks on Event-related Potentials in College Students”

10/14/14 – 10/30/15

Grant consists of equipment and supplies for a value of approximately \$ 33000

Role: Principal Investigator

## Teaching Experience

2012-present: Professor of Psychology, Behavioral & Social Sciences, Kentucky State University.

1995-2000: Lecturer in Pharmacology, School of Chemical Sciences, National University of Cordoba, Argentina.

1992-1994: Lecturer in Psychology, School of Philosophy and Humanities, National University of Cordoba, Argentina.

1989-1990: Instructor in Experimental Biopsychology, Psychology Department, National University of Cordoba, Argentina.

1989-1992: Instructor in Neurophysiology and Psychophysiology, Psychology Department, National University of Cordoba, Argentina.

## Talks and Symposia

1. **Capriles N.** Long-term cocaine-induced gene changes in the brain. *Motivation in the 21st Century: Brain Mechanisms of Learning and Behavioural Change. Symposium in Honor to Dr. Jane Stewart, Montreal, Quebec, Canada, April 5th, 2008.*
2. **Capriles N.** Persistent changes in gene expression in the Nucleus Accumbens after cocaine self-administration. *Center for Development and Behavioral Neuroscience, Binghamton University, State University of New York, February 15<sup>th</sup> 2008.*

3. **Capriles N.** Going to the edge: Energy drinks in College. *Local NIDA (Neuroscientists Interested in Drug Abuse)*, Lexington, Kentucky, April 1st, 2015.

## Publications

### Journal Articles

1. **Capriles, N.**; Watson, S.J.; Akil, H. (2012). Individual differences in the improvement of cocaine-induced place preference response by the 5-HT<sub>2C</sub> receptor antagonist SB242084 in rats. *Psychopharmacology* 220:731-740.
2. Turner, C.A., **Capriles, N.**, Flagel, S.B., Perez, J.A., Clinton, S.M., Watson, S.J., and Akil, H. (2009). Neonatal FGF2 alters cocaine self-administration in the adult rat. *Pharmacol Biochem Behav* 92(1):100-104.
3. Cecchi, M.; **Capriles, N.**; Watson, S.J.; Akil, H. (2008). Differential responses to morphine-induced analgesia in the tail-flick test. *Behavioral Brain Research*, 194(2):146-51.
4. **Capriles, N.**; Cecchi, M.; Watson, S.J.; Akil, H. (2007).  $\beta_1$  adrenergic receptors in the bed nucleus of stria terminalis mediate differential responses to opiate withdrawal. *Neuropsychopharmacology* 32(3): 589-599.
5. **Capriles, N.**; Rodaros, D.; Sorge, R.E.; Stewart, J. (2003) A role for the prefrontal cortex in stress-induced reinstatement of cocaine seeking in rats. *Psychopharmacology* 168: 66-74.
6. **Capriles N.R.**; Pacchioni, A.; Cancela, L.M.. (2002). Influence of acute or chronic restraint stress on morphine-induced locomotor stimulating effect: involvement of dopamine, opiate and glutamate receptors. *Behavioral Brain Research* 134: 229-238.
7. **Capriles, N.R.** & Cancela, L.M.. (2002). Motivational effects of  $\mu$  and  $\kappa$  opioid agonists following acute and chronic restraint stress: Involvement of dopamine D<sub>1</sub> and D<sub>2</sub> receptors. *Behavioral Brain Research* 132(2):159-169.
8. Cancela, L.M.; Basso, A.M.; Martijena, I.D.; **Capriles, N.R.**; Molina, V.A. (2001). A dopaminergic mechanism is involved in the 'anxiogenic-like' response induced by chronic amphetamine treatment: a behavioral and neurochemical study. *Brain Res.* 909(1-2):179-86.
9. **Capriles, N.** & Cancela, L. (1999). Effect of acute and chronic restraint stress on reinforcing properties of amphetamine: involvement of dopamine D<sub>1</sub> and D<sub>2</sub> receptors. *Eur. J. Pharmacol.*, 386(2-3):127-134.
10. Díaz Otañez, C.S.; **Capriles, N.R.**; Cancela, L.M. (1997). Dopamine D<sub>1</sub> and D<sub>2</sub> receptors are involved in the restraint-induced sensitization to psychostimulant effect of Amphetamine.

Pharmacol. Biochem. Behav., 58 (1):9-14.

Abstracts and Poster Presentations

1. Wallace, C.; **Capriles, N.R.** Energy drinks effects on cognitive performance as measured by auditory event-related potentials and quantitative EEG in college students. *Society for Neurosciences 45th Annual Meeting, October 17-21, 2015, Chicago, IL.*
2. **Capriles, N.R.**; Watson, S.J.; Akil, H. The 5-HT<sub>2c</sub> receptors modulate both expression and extinction of cocaine-induced place preference in rats. *Society for Neurosciences 40th Annual Meeting, November 13-17, 2010, San Diego, CA.*
3. **Capriles, N.R.**; Watson, S.J.; Akil, H. Differences in locomotion predict the effects of the 5-HT<sub>2c</sub> antagonist SB242084 on development and expression of cocaine-induced place preference. *Society for Neurosciences 39th Annual Meeting, October 17-21, 2009, Chicago, IL.*
4. **Capriles, N.R.**; Cecchi, M.; Watson, S.J.; Akil, H. Cocaine administration alters DNA methylation in the basolateral amygdale. *Society for Neurosciences 38th Annual Meeting, November 15-19, 2008, Washington, DC.*
5. **Capriles, N.R.**; Akil, H. Post-abstinence craving for cocaine in HR versus LR animals using a conditioned place preference paradigm. *Society for Neurosciences 37th Annual Meeting, November 3-7, 2007, San Diego, CA.*
6. Cecchi, M.; **Capriles, N.**; Watson, S.J.; Akil, H. 5-aza-2'-deoxycytidine enhances a measure of cocaine-induced sensitization in rats. *Society for Neurosciences 37th Annual Meeting, November 3-7, 2007, San Diego, CA.*
7. **Capriles, N.R.**; Garcia-Fuster, J.; Stead, J.; Evans, S.; Cecchi, M.; Watson, S.; Akil, H. Long-lasting changes in gene expression in nucleus accumbens following cocaine self-administration in rats with different reactivity to novelty. *Society for Neurosciences 36th Annual Meeting, October 14-18, 2006, Atlanta, GA.*
8. Cecchi, M.; **Capriles, N.**; Watson, S.J.; Akil, H. Tail-flick latency during chronic morphine administration in rats that differ for the locomotor activity in a novel environment. *Society for Neurosciences 36th Annual Meeting, October 14-18, 2006, Atlanta, GA.*
9. Gula E. L.; Flagel, S.B.; Turner, C.A.; **Capriles, N.**; Robinson, T.E.; Watson, S.J.; Akil, H. A role for the fibroblast growth factor system in cocaine sensitization. *Society for Neurosciences 36th Annual Meeting, October 14-18, 2006, Atlanta, GA.*
10. **Capriles, N.R.**; Stead, J.; Evans, S.; Cecchi, M.; Watson, S.; Akil, H. Alterations in mRNA expression of G-protein receptors in Accumbens during acquisition and withdrawal phases, in high- and low-responder rats trained to self-administer cocaine.

*Society for Neurosciences 35th Annual Meeting, November 12-16, 2005, Washington, D.C.*

11. Cecchi, M.; **Capriles, N.**; Watson, S.J.; Akil, H. Locomotor response to novelty: a predictor of individual differences in opioid withdrawal. *Society for Neurosciences 35th Annual Meeting, November 12-16, 2005, Washington, D.C.*
12. **Capriles, N.R.**; Stead, J.; Watson, S.; Akil, H. Acquisition and extinction following different withdrawal periods in rats trained to self-administer cocaine: A microarray study. *Society for Neurosciences 34th Annual Meeting, October 23-27, 2004, San Diego, CA.*
13. Cecchi, M.; **Capriles, N.**; Watson, S.J.; Akil, H. Novelty-induced locomotor activity in rats; a predictor of the severity of opiate withdrawal? *Society for Neurosciences 34th Annual Meeting, October 23-27, 2004, San Diego, CA.*
14. **Capriles, N.R.**; Szymanski, T.; Evans, S.; Watson, S.; Akil, H. Acquisition and extinction following different withdrawal periods in high- and low-responder rats trained to self-administer cocaine. *Society for Neurosciences 33rd Annual Meeting, November 8-12, 2003, New Orleans, Louisiana.*
15. **Capriles, N.**; Amir, S.; Stewart, J. Inactivation of prefrontal and orbitofrontal regions by tetradotoxin attenuates stress-induced reinstatement of cocaine seeking? *Society for Neurosciences 31st Annual Meeting, November 10-15, 2001, San Diego.*
16. **Capriles, N.**; Pacchioni, A.; Ponce, L.; Cancela, L.M. Effects of haloperidol pretreatment in dopamine mesocorticolimbic areas on restraint stress-induced sensitization to reinforcing and locomotor stimulating properties of d-amphetamine. *21st International Summer School of Brain Research: "Cognition, Emotion and Autonomic Responses: The integrative role of prefrontal cortex and limbic structures", August 23-27, 1999, Amsterdam.*
17. Cancela, L.; Martijena, I ; **Capriles, N.**; Basso, AM.; Molina, V. Anxiogenic response induced by a chronic amphetamine treatment: Changes in the GABAergic function. *XXX Reunión Anual de la S.A.F.E., Noviembre de 1998, Buenos Aires, Argentina.*
18. **Capriles, N.**; Gioino, G.; Cancela, L. Differential modulation by stress of the motivational properties of morphine and bremazocine: Involvement of opioid and dopaminergic systems. *XXIX Reunión Anual de la S.A.F.E., Noviembre de 1997, Corrientes, Argentina.*
19. Cancela, L.; **Capriles, N.** Reversion by opioid and dopamine antagonists of the sensitization induced by stress on the reinforcing properties of morphine. *XXVIII Reunión Anual de la Sociedad Argentina de Farmacología Experimental, noviembre de 1996, Paraná (Entre Ríos), Argentina.*

20. **Capriles, N.**; Cancela, L. Differential modulation of the reinforcing properties of amphetamine by acute or chronic restraint stress: Involvement of central dopaminergic pathways. *XXVIII Reunión Anual de la Sociedad Argentina de Farmacología Experimental, noviembre de 1996, Paraná (Entre Ríos), Argentina.*
21. Cancela, M.; **Capriles, N.** ; Díaz Otañez, S. Increase of the reinforcing and stimulating properties of amphetamine of the previous exposure to stress. Involving of central dopaminergic mechanisms. *1er. Congreso Internacional para la Prevención y Asistencia de la Drogadependencia "Frente a la droga, un desafío social", junio de 1995, Buenos Aires, Argentina.*
22. Díaz Otañez, S.; **Capriles, N.**; Cancela, L. Reversion by dopaminergic antagonists of the sensitization to the stimulating effects of amphetamine induced by stress. *XXVI Reunión Anual de la Sociedad Argentina de Farmacología Experimental, noviembre de 1994, Mar del Plata (Buenos Aires), Argentina.*
23. **Capriles, N.**; Córdoba, D. Effects of associative learning on the development of tolerance of alcohol in the early ontogeny. *IV Reunión Nacional de la Asociación Argentina de Ciencias del Comportamiento, octubre de 1993, Mendoza, Argentina.*
24. **Capriles, N.**; Córdoba, D. Conditioned tolerance to alcohol in the early ontogeny. *Jornadas Nacionales de Investigación en Psicología "Homenaje al Dr. Víctor Mercante", noviembre de 1991, Mar del Plata (Buenos Aires), Argentina.*
25. López, M., **Capriles, N.**, Córdoba, D. Generation of compensatory thermic responses, resulting of alcohol administration. *IIIras. Jornadas Científico-Pedagógicas de Neurociencias en Psicología, noviembre de 1990, Córdoba, Argentina.*