

# CURRICULUM VITAE

**David M. Diamond, Ph.D.**

## Current Position

### Professor

Department of Psychology  
Cognitive, Neural and Social Division  
University of South Florida  
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## Education and Degrees

B.S. in Biology University of California, Irvine, 1980  
Ph.D. in Biology University of California, Irvine, 1985  
Department of Psychobiology and  
Center for the Neurobiology of Learning and Memory

## Professional Memberships

Past Memberships: Society for Neuroscience; International Brain Research Organization; NY Academy of Sciences; The American Institute of Stress; International Behavioral Neuroscience Society; The Institute For Traumatic Stress

## Honors and Awards

1985 University of California Regents Dissertation Award  
1994, 1995 Excellence in Research Award – VA Medical Center, Denver,  
1998 USF Faculty Equipment Award and International Travel Award  
2005 – 2016 VA Research Career Scientist Award  
2012 Elected as a Fellow in the American Institute of Stress and  
International Stress and Behavior Society  
2015 Award for Outstanding Contribution to Science – Riga Diabetes  
and Obesity World Congress  
2015 USF International Travel Award  
2019 Weston A. Price Foundation - Mary Enig Integrity in Science Award  
2020 Distinguished Lecture Award – Fordham Law School

## Summary of Post-Graduate Academic Progress

1985 – 1986	Postdoctoral Researcher, University of California, Irvine, Center for the Neurobiology of Learning and Memory
1986 – 1997	Assistant Professor, Department of Pharmacology, University of Colorado Health Sciences Center, Denver, Colorado
1997 – 2003	Associate Professor, Departments of Psychology and Pharmacology, University of South Florida, Tampa, Florida
2003 – Present	Professor, Department of Psychology, University of South Florida, Tampa, Florida
1988 – 2005	Research Scientist, Medical Research, Veterans Administration Medical Center, Denver, Colorado and Tampa, Florida
2005 – 2016	Career Scientist, Medical Research, Veterans Administration Medical Center, Tampa, Florida
2007 – 2017	Director, USF Center for Preclinical and Clinical Research on PTSD

## University/VA Hospital Service

### University of South Florida

1997 – 2015	<u>Chair</u> , Library Committee, Dept. of Psychology, USF
1997 – 2001	Equipment Committee, Dept. of Psychology, USF
1997 – 2015	Computer (Technology) Committee, Dept. of Psychology, USF
2001 – 2003	Institutional Animal Care and Use Committee, USF
2001 – 2003	Department of Psychology By-Laws Revision Committee
2001 – 2002	<u>Chair</u> , CNS Graduate Admissions Committee
2008 – 2009	University-Task Force: Committee on Research and Scholarship
2002 – 2011	Department of Psychology Space Committee
2008 – 2019	<u>Director</u> : USF Collaborative Neuroscience Program
2009 – 2010	Scientific Advisory Board – USF Byrd Alzheimer’s Center
2009 – 2011	Faculty Liaison to the USF Health Sciences & Research Workgroup
2011 – 2013	Translational Neuroscience Doctoral Program Committee
2009 – 2016	<u>Chair</u> , Department of Psychology Awards Committee
2011 – 2015	USF/VA Neuroscience Building Planning Subcommittee
2012 – 2016	Institutional Animal Care and Use Committee, USF
2009 – 2019	Psychology Department - T & P Advisory Committee
2016 – 2019	College of Arts and Sciences – T & P Advisory Committee
2015 - Present	School of Natural Sciences and Math - T & P Advisory Committee
2020	Chair, School of Natural Sciences and Math – T & P Advisory Committee

### Veterans Affairs Medical Center (Denver and Tampa)

1990 – 1997	Institutional Animal Care and Use Committee, VAMC, Denver
1998 – 2001	Research and Development Committee, VAMC, Tampa
2001 – 2015	Annual Grand Rounds Lectures to Endocrinology
2002 – 2016	<i>ad hoc</i> Chair, Member, Hazards and Biosafety Committee
2009 – 2016	USF-VA Veterans Reintegration Steering Committee
2009 – 2016	Research and Development Committee, VAMC, Tampa

## Department of Psychology Honors Program

Mary Newman, David Doan, Darien Peckham, Kimberly Canals, Julianne Parish

## Undergraduate Directed Research

Nedda Jacques, Liz Reeher, Melissa LaBoy, Jennifer Alamed, Hayley Carr,  
Rebecca Diaz, Garbine Mijares, Alysha Palladino, Saritza Legault, Alisa Lee

## Ph.D./Masters Thesis Advisor

1998 – 2001	Michael Puls, Amie Wilbanks, Mary Newman (co-advisor)
1998 – 2004	Adam Campbell (Ph.D. awarded in 2004)
2000 – 2002	Leila Amiri
2001 – 2003	Doug Stimac
2004 – 2008	Phil Zoladz (Ph.D. awarded in 2008)
2006 – 2010	Shyam Seetharaman (M.A. awarded in 2009)
2005 – 2012	Josh Halonen (Ph.D. awarded in 2012)
2011 – 2015	Laura Bullard (Ph.D. awarded in 2015)
2014 – 2017	Savannah Dalrymple (M.A. awarded in 2017)

## USF Honors College Thesis Advisor (2018 – Present)

2018	Raquel Sanford, Josline Arayil, Saisurya Kanaparthi
2019	Valentine Santarlas, Mikaela Mendez
2020	Savannah Georgian, Jasraj Pruthi

## Courses Taught at the University of South Florida

1997 - 1999	Physiological Psychology (Graduate)
1999	University Honors Seminar (Undergraduate)
1998 - Present	Psychology of Learning (Undergraduate)
2001 - 2009	Graduate/Undergraduate Seminar: <i>Emotion, Memory and Brain</i>
2003 - 2011	Molecular Neuroscience (Graduate - Team Teaching Course)
2009 – Present	Graduate/Undergraduate Seminar (Dept of Psychology, USF Honors College) <i>Controversies in Medical Research</i>

## Post-Doctoral Fellows

University of Colorado (1990 - 1997)	Michael Mesches, Karen Mesches
University of South Florida (1997 – 2019)	Collin Park, James Woodson, Rose-Marie Vouimba Seth Norrholm, Adam Campbell, Phillip Zoladz, Josh Halonen, Gef Farmer

## Subset of Masters and Dissertation Committees

### USF, Department of Psychology (Since 2002)

Ph.D. Awarded, 2002	Deadtrick Newsome (I/O Psychology)
Ph.D. Awarded, 2002	Cong Liu (I/O Psychology)
Ph.D. Awarded, 2002	Tony Laverghetta (Cognitive and Neural Sciences)
Ph.D. Awarded, 2007	Chip Weir (Clinical Psychology)
Ph.D. Awarded, 2008	Kimberly Badanich (Cognitive/Neural Sciences)

## Professional Service

### Ad Hoc Grant Reviewer

Health Research Board, Ireland; National Science Foundation  
International Human Frontier Science Program  
International Science and Technology Center (Moscow)  
National Medical Research Council (Singapore)  
National Institutes of Mental Health; Qatar National Research Fund  
Natural Sciences and Engineering Research Council of Canada  
Netherlands Org. for Scientific Research; Univ of Houston Grants to Enhance and Advance Research; VA (VISN 3) New Researcher Seed Grant Program;  
The Wellcome Trust; New Researcher Discovery Grants (Canada)

### Participation on Federal Study Sections and Committees

2002 NIH Integrative, Functional and Cognitive Neuroscience Study Section  
2003 VA Merit Review Study Section: Neurobiology  
2004 NIH Conte Center Panel: Neuroscience of Mental Disorders  
2004 VA Merit Review Study Section: Neurobiology  
2005 VA Merit Review Study Section: Mental Health Behavioral Science  
2006 NIH Conte Center Panel: Neurobiology of Learning and Memory  
2007 VA Merit Review Study Section: Mental Health Behavioral Science  
2007 Congressionally Directed Medical Research Programs/Dept. of Defense:  
PTSD Research Program/Neurobiology and Genetics Panel  
2008 VA National "Think-Tank" on PTSD Drug Discovery and Development  
2008 Congressionally Directed Medical Research Programs/Dept. of Defense:  
Psychological Health/Neurobiology and TBI Panel  
2009 Military Medical Research Program: PTSD Treatment Study Section  
2009-2011 NIMH "Pathway to Independence" K99 Study Section  
2011 VA Merit Review Study Section: Cellular and Molecular Medicine  
2012 Congressionally Directed Medical Research Programs/Dept. of Defense:  
Psychological Health/Neurobiology and TBI Panel  
2014 NIMH - Biobehavioral Research Awards for Innovative New Scientists  
2015 VA Investigator Eligibility Committee  
2016 NIMH Ruth L. Kirschstein National Research Service Award (NRSA)

### Host to Visiting Scientists and Students

2002 – 2003 Vernon Haynes, Ph.D., Professor, Dept. of Psychology, Youngstown State University, Youngstown, Ohio  
2003 Ryan Wright, Graduate Student, Arizona State University, Arizona

### Scientific Advisory Boards

2002 – 2004 *Non-Linear Dose-Response Relationships in Biology, Toxicology and Medicine*, Univ Massachusetts, Amherst  
2006 - 2009 *Workshops on the Stress, Memory and Brain Plasticity*; Genova, Italy; Amsterdam, Netherlands; Villars-sur-Ollon, Switzerland  
2015 - 2018 *The Nutrition Coalition*; Scientific Advisory Board Member  
2017 – Present *Real Ketones*; Scientific Advisory Board Member

## **Outside Member of University Committees**

### Dissertation Committees

Ph.D. Awarded, 2003, Irit Akirav, Univ. of Haifa, Israel, Dept. of Psychology  
Ph.D. Awarded, 2006, Dario Dieguez, Univ. of Texas, Dept. of Psychology

### Undergraduate Honors Committees

Arizona State University  
Honors Thesis Committee, 2007 Gillian F. Hamilton  
Honors Thesis Committee, 2007 Jessica Wilson

### Tenure and Promotion Review Committees

Terrence Deak, Ph.D., 2006, Binghamton University, New York,  
Department of Psychology  
Irit Akirav, Ph.D., 2010, University of Haifa, Israel,  
Department of Psychology  
Geoff Potts, Ph.D. 2011, University of South Florida,  
Department of Psychology  
Marina Bornovalova, 2013-2015, Univ of South Florida,  
Department of Psychology  
Jennifer Bosson, 2015, Univ of South Florida,  
Department of Psychology  
John Howland, 2016, University of Saskatchewan,  
Department of Physiology  
Terrence Deak, Ph.D., 2019, Binghamton University, New York,  
Department of Psychology

## **Mentorship to Young Investigators**

NIH Centers of Biomedical Research Excellence (COBRE)  
Mentor to Tania Roth, Ph.D. – University of Delaware  
NIMH Predoctoral Fellowship to Dave McQueen - University of South Florida

## **Book Editor**

*“The Stressed Synapse: Synaptic Stress and Pathogenesis of Neuropsychiatric Disorders”*, Expected Publication date: 2015  
Edited by D.M. Diamond, G. Sanacora and M. Popoli

## **Membership on Editorial Boards**

- *The Journal of Neuroscience Methods* (2004 – Present)
- *Nonlinearity in Biology, Toxicology and Medicine* (2004 – 2006)
- *Dose Response* (2006 – Present); *Neural Plasticity* (2006 – Present)
- *Brain and Behavior* (2011 – Present)
- *Journal of Integrative Psychology and Therapeutics* (2013 – Present)
- *Journal of Pharmacology and Drug Metabolism* (2013 – Present)
- *Frontiers in Behavioral Neuroscience* (2007 – Present)
- *Stress, Brain and Behavior* (2014 – Present)
- *World Journal of Neurology* (2012 – Present)
- *Nutritional Neuroscience* (2016 – Present)

## **Guest Editor**

*Nonlinearity in Biology, Toxicology and Medicine (2003-2006)*

Issue theme: *Non-linearities Among Arousal, Memory and Brain Functioning*

*Behavioral Sciences (2011-2012)*

Issue theme: *From Synapses to Syndromes in Stress Research: Translational Approaches to the Study of the Neurobiology of Stress-Related Mental Disorders*

*Frontiers in Molecular Psychiatry (2012 – 2013)*

Issue Theme: *Epigenetic pathways in PTSD: How traumatic experiences leave their signature on the genome*

## **Ad Hoc Journal Reviewer**

*American Journal of Physiology*

*Behavioral and Brain Functions*

*Biological Psychiatry*

*Brain Research*

*British Journal of Medicine and Medical Research*

*Cerebral Cortex*

*European Journal of Neuroscience*

*Hippocampus*

*International Journal of Neuropsychopharmacology*

*Journal of Neurochemistry*

*Journal of Neuroimmunology*

*Journal of Neuroscience Methods*

*Journal of Neuroscience Research*

*Medical Science Monitor*

*Nature Reviews Neuroscience*

*Neurobiology of Aging*

*Stress*

*Methods and Findings in Experimental and Clinical Pharmacology*

*Neuropsychopharmacology*

*Physiology and Behavior*

*The Journal of Neuroscience*

*Pharmacology, Biochemistry and Behavior*

*Proceedings of the National Academy of Sciences*

*Progress in Neuro-Psychopharmacology & Biological Psychiatry*

*Psychological Reports: Perceptual and Motor Skills*

*The Journal of Pharmacology and Experimental Therapeutics*

*Behavioural Brain Research*

*Behavioral Neuroscience*

*Brain and Cognition*

*Brain Research Bulletin*

*Experimental Brain Research*

*Experimental Neurology*

*Hormones and Behavior*

*Journal of Neurophysiology*

*Synapse*

*Journal of Gerontology*

*Journal of Physiology*

*Molecular Psychiatry*

*Neural Plasticity*

*Science*

*Neuropharmacology*

*Clinical Pharmacology*

*Neuroscience*

*Physiological Reviews*

*Trends in Neurosciences*

*Psychobiology*

## Community Service

### Interactions with the Community

- 1999 Tampa Museum of Science and Industry  
*Representative of the Tampa Bay Society for Neuroscience*
- 1999 - 2001 Ridgewood High School Externship Program  
*Mentor to Kalah Mueller*
- 1999 Hillsborough High School International Baccalaureate Program  
*Mentor to Zach Thomas*
- 2002 USF “Lunch with a Scholar”  
*Lecture to community leaders on stress, brain and memory*
- 2004 - 2008 The Learning-Brain Expo, Orlando, Florida  
*Lectures to the community about the brain and memory*
- 2011 USF “Dinner with a Scholar”  
*Lecture to community leaders on nutrition myths and health*
- 2012 North Tampa Bay Rotary Club  
*Lecture on the Neurobiology of PTSD*
- 2015 Institute for Human & Machine Cognition, Ocala, Florida  
Lecture: *“Demonization and Deception in Cholesterol Research: Separating Fact From Profitable Fiction”*
- 2017 NYU Alumni Group: Lecture: *“Demonization and Deception in Cholesterol Research*
- 2017 Institute for Human & Machine Cognition, Pensacola, Florida  
Lecture: *“Update on Demonization and Deception in Saturated Fat, Cholesterol and Heart Disease Research”*
- 2017 Florida Psychological Association  
Lecture: *“Cooperation and Competition Among brain Structures Involved in Memory Processing”*
- 2019 Office of Criminal Conflict and Civil Regional Counsel, 5th District, Central Florida  
Lecture: *Legal and Neuropsychological Perspectives on Catastrophic Memory Failures*
- 2020 American Council of Second Amendment Lawyers, Continuing Legal Education Seminar  
Lecture: *Neuropsychological Perspective on How Stress Affects Memory and Decision-Making*

## Funding (Grants and Awards)

- 1990 - 1994 **Principal Investigator**, Veterans Affairs Merit Review Award, “*Etiology of the Stress-Induced Inhibition of Hippocampal Plasticity*”; \$230,774
- 1991 - 1994 **Principal Investigator**, Office of Naval Research, “*Analysis of the Inverted-U Relationship Between Corticosterone and Hippocampal Plasticity*”; \$343,704
- 1994 - 1997 **Principal Investigator**, Veterans Affairs Merit Review Award “*Neurobiology of Stress Effects on the Hippocampus*”; \$274,632
- 1994 - 1997 **Principal Investigator**, Office of Naval Research, “*Corticosteroid Effects on Hippocampal Function*”; \$315,804
- 1996 - 1997 **Principal Investigator**, Office of Naval Research, “*Antagonism of Stress Effects on the Hippocampus by DHEA*”; \$12,600
- 1997 - 2000 **Principal Investigator**, Veterans Affairs Merit Review Award, “*Long-term Effects of Stress on Memory and Hippocampal Function*”; \$448,962
- 2000 – 2005 **Principal Investigator**, Veterans Affairs Merit Review Award, “*Neuroendocrine Basis of Stress Effects on Memory and Brain Plasticity*” \$1,206,500
- 2002 – 2003 **Principal Investigator**, Servier Pharmaceuticals, France “*Effects of Tianeptine on the Stress-Induced Suppression of Hippocampal Function*”, \$68,000
- 2000 – 2005 **Co-Investigator**, National Institutes of Aging “*Functional Consequences of Vaccination in AD Tg Mice*” \$2,212,500
- 2002 – 2008 **Co-Investigator**, National Institutes of Mental Health “*Significance of Stress-Induced Hippocampal Atrophy*” \$750,000
- 2004 – 2008 **Principal Investigator**, Servier Pharmaceuticals, France “*AMPA Receptor Modulator and Amyloid Accumulation in an Animal Model of Alzheimer’s Disease*”; \$68,500
- 2005 – 2008 **Principal Investigator**, Servier Pharmaceuticals, France “*Influence of S 24795, a nicotinic modulator, on memory performance and accumulation of  $\beta$ -Amyloid in APP+PS1 transgenic mice*”; \$158,000
- 2005 – 2009 **Principal Investigator**, Veterans Affairs Merit Review Award, “*Effects of Stress on Memory: Brain Circuits, Mechanisms and Therapeutics*” \$625,000
- 2005 – 2015 **Veterans Affairs Career Scientist Award**, \$1,100,000
- 2007 – 2008 **Principal Investigator**, Allergan “*Effects of Cognitive Enhancing Agents on Spatial Memory*”; \$35,000
- 2005 – 2009 **Principal Investigator**, Servier Pharmaceuticals, France “*Influence of Agomelatine on memory and brain plasticity*”; \$71,000
- 2008 – 2009 **Mentor**, Veterans Affairs Research Fellowship “*Cranial Electrical Stimulation as a Treatment for Combat-Related PTSD: A Double-Blind, Randomized, Controlled Trial*”; \$4,000
- 2008 – 2011 **Principal Investigator**, Allergan “*Pharmacological Reversal of Stress-Induced Sequelae*”; \$77,000



- 2010 – 2014     **Principal Investigator**, Veterans Affairs Merit Review Award,  
“*Neural Mechanisms and Therapeutics in Animal Model of PTSD:*”; \$600,000
- 2011 – 2013     **Principal Investigator**, Veterans Reintegration Program and  
USF Neuroscience Collaborative; “*G-CSF, Stem Cell and Dietary Treatments in  
an Animal Model of TBI*”; \$90,000
- 2011 – 2013     **Co-Principal Investigator**, Department of Defense,  
“*Battlefield–Related Injury Translational Research, Post-Traumatic  
Disease and Disability - Veterans Reintegration Strategy*”; \$1,350,000
- 2012 – 2014     **Mentor** (to David MacQueen), National Institutes of Health,  
“*The Effects of Nicotine on a Translational Model of Working Memory*”; 91,642
- 2012             **Co-Principal Investigator**, National Science Foundation,  
“*MRI: Acquisition of a CAREN Virtual Reality System for Collaborative  
Research in Assistive and Rehabilitation Technologies*”; \$450,000
- 2014 – 2015     **Co-Investigator**, State of Florida, \$245,000  
**PI: Kevin Kip, Ph.D., USF, College of Nursing**  
“*Pilot Randomized Controlled Trial of Jiu Jitsu (JJ) Training Versus  
Conventional Physical Exercise (CPE) Among U.S. Service Members and  
Veterans With Symptoms of Post-Traumatic Stress Disorder*”
- 2014 – 2015     **Co-Investigator**, Chris T. Sullivan Foundation, \$600,000  
**PI: Kevin Kip, Ph.D., USF, College of Nursing**  
“*Accelerated Resolution Therapy for Veterans With PTSD*”
- 2015 – 2017     **Co-Investigator**, Department of Defense, \$125,000  
**PI: Joseph Francis, Ph.D., Louisiana State University**  
“*Inflammation, Oxidative Stress, and Neuroprotective Mechanisms in the  
Pathophysiology of PTSD in an Animal Model: Measuring the Therapeutic  
Effects of Blueberries, Exercise, and Prolonged Exposure Therapy*”
- 2016 – 2019     **Co-Principal Investigator**, NIMH             **\$524,000**  
“*Optimization of glucocorticoid receptor (GR) passive antagonists for the  
treatment of post-traumatic stress disorder (PTSD)*”

## Summary of My Contributions to Science

### Research on Auditory System Plasticity and Memory (1980-1989)

My dissertation research characterized plasticity of single cell activity in the auditory cortex during learning. The issue we addressed was the functional significance of neural plasticity in a sensory system. How is it possible for a cell to represent the physical parameters of sound, as well as its psychological significance? One component of this work was to review the functional neuroanatomy of the thalamo-cortical auditory system. We described the parallel pathways that carried purely sensory information in parallel with psychological information to the auditory cortex. In empirical work we directly measured single cell activity in the auditory cortex during classical conditioning in awake cats. Our research demonstrated, for the first time, that the sensory cortical maps were capable of demonstrating plasticity in their representation. We demonstrated that individual auditory cortical neurons could exhibit rapid and systematic changes in their receptive fields in response to perceived changes in the significance of sounds.

### Subset of Publications

- Diamond, D.M. and Weinberger, N.M. (1984) Physiological plasticity of single neurons in auditory cortex of the cat during acquisition of the pupillary dilation conditioned response: II. Secondary field (AII). *Behavioral Neuroscience*, 98:189-210.
- Diamond, D.M. and Weinberger, N.M. (1986) Classical conditioning rapidly induces specific changes in frequency receptive fields of single neurons in secondary and ventral ectosylvian auditory cortical fields. *Brain Research*, 372:357-360.
- Weinberger, N.M. and Diamond, D.M. (1987) Physiological plasticity of single neurons in auditory cortex: Rapid induction by learning. *Progress in Neurobiology*, 27:1-55.

### Research on Stress and Brain Plasticity (1986-Present)

I have studied the effects of stress on hippocampal synaptic plasticity, *in vitro* and *in vivo*. We discovered that exposing rats to a stressful environment blocked the expression of synaptic plasticity in the hippocampus. We extended the preliminary findings to include the use of a live cat as an ethologically relevant stressor to rats. Exposure of rats to a cat produced a profound stress response which blocked synaptic plasticity in the hippocampus in behaving rats, as well as in the hippocampus, *in vitro*. We also found that cat exposure enhanced plasticity in the amygdala. This work provides insight into how memory-related synaptic plasticity in the brain is modulated by stress.

### Subset of Publications

- Diamond, D.M., Bennett, M.C., Stevens, K.E., Wilson, R.L. and Rose, G.M. (1990) Exposure to a novel environment interferes with the induction of hippocampal primed burst potentiation in behaving rats, *Psychobiology*, 18:273-281.
- Diamond, D.M., Bennett, M.C., Fleshner, M. and Rose, G.M. (1992) Inverted-U relationship between the level of peripheral corticosterone and the magnitude of hippocampal primed burst potentiation, *Hippocampus*, 2:421-430.
- Diamond, D.M., Fleshner, M. and Rose, G.M. (1994) Psychological stress repeatedly blocks hippocampal primed burst potentiation in the behaving rat, *Behavioural Brain Research*, 62:1-9.

- Mesches, M.M., Fleshner, M., Heman, K.L. Rose, G.M. and Diamond, D.M. (1999) Exposing rats to a predator blocks primed burst potentiation in the hippocampus *in vitro*, *Journal of Neuroscience*, 19:(RC18) 1-5.
- Vouimba, R.M., Muñoz, C., Diamond, D.M. (2006) Differential effects of predator stress and the antidepressant tianeptine on physiological plasticity in the hippocampus and basolateral amygdala. *Stress: The International Journal on the Biology of Stress*, 9:29-40.

### **Research on Stress and Memory (1996-Present)**

My group has studied the effects of stress on different forms of memory. We have shown that acute stress impaired hippocampus-dependent, but not hippocampus-independent memory. In conjunction with the behavioral work, we have studied molecular mechanisms which are activated by memory, as well as blocked by the stress-induced impairment of memory. This work provides insight into the complex effects of stress on different forms of memory.

### **Subset of Publications**

- Diamond, D.M., Ingersoll, N., Fleshner, M. and Rose, G.M. (1996) Psychological stress impairs spatial working memory: Relevance to electrophysiological studies of hippocampal function, *Behavioral Neuroscience*, 110: 661-672.
- Diamond, D.M., Park, C.R., Heman, K.L. and Rose, G.M. (1999) Exposing rats to a predator impairs spatial working memory in the radial arm water maze, *Hippocampus*, 9:542-552.
- Sandi, C., Woodson, J.C., Haynes, V.F., Park, C.R., Touyarot, K., Lopez-Fernandez, M.A., Venero, C. and Diamond, D.M. (2005) Stress-induced spatial memory impairment is associated with a selective decrease in the expression of NCAM in hippocampus and prefrontal cortex. *Biological Psychiatry*, 57:856-864.
- Zoladz, P.R., Park, C.R., Halonen, J.D., Salim, S., Alzoubi, K.H., Srivareerat, M., Fleshner, M., Alkadhi, K. and Diamond, D.M. (2012) Differential expression of molecular markers of synaptic plasticity in the hippocampus, prefrontal cortex and amygdala in response to spatial learning, predator exposure and stress-induced amnesia. *Hippocampus*, 22:577-589.

### **Research on Trauma Memory Processing (2000-Present)**

In parallel with our work on stress, memory and brain plasticity, we have assessed the functional significance of stress effects on the hippocampus and amygdala. In theoretical work we have provided a framework for understanding the conceptual basis for how and why stress affects the hippocampus. We published reviews and syntheses on how stress affects the dynamics of information processing. This theoretical framework emphasizes that stress first activates the hippocampus, and then suppresses its plasticity, to produce restricted fragments of memory which are time-locked to the onset of a stressor. In addition, we have discussed the role of hippocampal and amygdala processing in the development of PTSD from an evolutionary perspective. Overall, this work enables us to have a better understanding of the neurobiological basis of traumatic memory processing in people diagnosed with PTSD.

### **Subset of Publications**

- Diamond, D.M. and Park, (2000) Predator exposure produces retrograde amnesia and blocks synaptic plasticity: Progress toward understanding how the hippocampus is affected by stress. *Annals of the New York Academy of Sciences*, pp. 453-455.
- Diamond, D.M., Park, C.R. and Woodson, J.C. (2004) Stress generates emotional memories and retrograde amnesia by inducing an endogenous form of hippocampal LTP. *Hippocampus*, 14:281-291.
- Diamond, D.M., Park, C.R., Campbell, A.M. and Woodson, J.C. (2005) Competitive interactions between endogenous LTP and LTD in the hippocampus underlie the storage of emotional memories and stress-induced amnesia. *Hippocampus* 15:1006-1025.
- Diamond, D.M. Campbell, A.M., Park, C.R., Halonen, J. and Zoladz, P.R. (2007) The temporal dynamics model of emotional memory processing: A synthesis on the neurobiological basis of stress-induced amnesia, flashbulb and traumatic memories, and the Yerkes-Dodson Law. *Neural Plasticity*, vol. 2007, Article ID 60803, doi:10.1155/2007/60803.
- Diamond, D.M. and Zoladz, P.R., (2016) Dysfunctional or hyperfunctional? The amygdala in PTSD is the bull in the evolutionary china shop. *Journal of Neuroscience Research*, 94(6): 437-444.

### **Animal Model of PTSD (2007-Present)**

My group has incorporated the use of cat exposure in conjunction with daily social instability in rats to study physiological and behavioral features of an animal model of PTSD. This work has taken into account clinical aspects of the behavioral and physiological symptoms commonly observed in traumatized people in our animal model of PTSD. We have found that predator exposure administered in conjunction with social instability produces responses in rats that are comparable to symptoms commonly observed in traumatized people. In addition, we have studied the influence of pharmacological agents on the expression of PTSD-like effects at behavioral and physiological levels of analysis in predator-exposed rats.

### **Subset of Publications**

- Zoladz, P.R., Conrad, C.D., Fleshner, M. and Diamond, D.M. (2008) Acute episodes of inescapable predator exposure in conjunction with daily social stress as an animal model of post-traumatic stress disorder. *Stress: The International Journal on the Biology of Stress*, 11:259-281.
- Zoladz, P.R., Fleshner, M. and Diamond, D.M. (2012) Psychosocial animal model of PTSD produces a long-lasting traumatic memory, an increase in general anxiety and PTSD-like glucocorticoid abnormalities. *Psychoneuroendocrinology*, 37:1541-1545.
- Zoladz, P.R., Fleshner, M. and Diamond, D.M. (2013) Differential effectiveness of tianeptine, clonidine and amitriptyline in blocking traumatic memory expression, anxiety and hypertension in an animal model of PTSD. *Progress in Neuropsychopharmacology & Biological Psychiatry*, 44:1-16.
- Zoladz, P.R., Park, C.R., Fleshner, M. and Diamond, D.M. (2015) Psychosocial predator-based animal model of PTSD produces physiological and behavioral sequelae and a traumatic memory four months following stress onset. *Physiology and Behavior*, 147:183-192.

Zoladz, P.R. and Diamond, D.M. (2015) Psychosocial stress in rats: an animal model of PTSD based on clinically relevant risk factors. In: *The Comprehensive Guide to Post-traumatic Stress Disorder*, Springer Publishing.

Zoladz, P.R. and Diamond, D.M. (2016) Predator-Based Psychosocial Stress Animal Model of PTSD: Preclinical Assessment of Traumatic Stress at Cognitive, Hormonal, Pharmacological, Cardiovascular and Epigenetic Levels of Analysis. *Experimental Neurology*, 284:211-219.

### **Clinical Research on Treatment for PTSD (2012-Present)**

In addition to my preclinical research on an animal model of PTSD I have been working with a clinical research group at USF on a novel approach to PTSD treatment. This non-pharmacological approach is referred to as accelerated response therapy (ART), which is a form of eye movement desensitization and reprocessing (EMDR). ART has been shown to be effective in the treatment of individuals with civilian and military forms of PTSD. It focuses on reducing physiologic and emotional reactivity linked to intrusive emotional images and memories of trauma with visualization, relaxation techniques and rescripting of trauma imagery in conjunction with lateral eye movements. The effectiveness of ART as a treatment for PTSD is documented in our numerous publications and in the support of ART by the Department of Defense in the treatment of veterans with PTSD.

### **Subset of Publications**

Kip, K.E., Elk, C.A., Sullivan, K.L., Kadel, R., Lengacher, C.A., Long, C.J., Shuman, A., Rosenzweig, L., Hernandez, D.F., Street, J.D., Girling, S.A., Diamond, D.M. (2012) Brief treatment of symptoms of post-traumatic stress disorder (PTSD) by use of Accelerated Resolution Therapy (ART). *Behavioral Sciences*; 2(2): 115-134;doi:10.3390/bs2020115.

Kip, K.E., Rosenzweig, L., Hernandez, D.F., Shuman, A., Sullivan, K.L., Long, C., Taylor, J., McGhee, S., Girling, S.A., Wittenberg, T., Sahebzamani, F., Lengacher, C.A., Kadel, R., and Diamond, D.M. (2013) Randomized Controlled Trial of Accelerated Resolution Therapy (ART) for Symptoms of Combat-Related Post-Traumatic Stress Disorder (PTSD). *Military Medicine*, 178:1298-1309.

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Kip, K.E., and Diamond, D.M., (2018) Clinical, empirical, and theoretical rationale for selection of accelerated resolution therapy (ART) for treatment of post-traumatic stress disorder in VA and DoD facilities. *Military Medicine* 183(9-10):E314-E321.

## Cognitive and Neurobiological Perspectives on Why Parents and Caretakers Lose Awareness of Children in Cars

### Background and Historical Perspective

One aspect of my research program is the study of how normal (i.e., attentive and loving) parents and caretakers, without evidence of abuse or neglect of children, and without evidence of drug abuse or organic brain dysfunction, *unintentionally and unknowingly*, leave children in cars. Under conditions in which the ambient temperature is warm enough and the car is exposed to direct sunlight, heat builds within the car and the child may die or become brain damaged as a result of hyperthermia. It is difficult to understand how a person can leave a child in a car, and yet, it appears to occur at an alarmingly high rate. A survey of 1000 parents which was presented at the National Lifesavers Conference on Highway Safety Priorities in 2014 reported that approximately 25% of all parents with children under 3 reported that at some time during a drive they had forgotten that their child was in the car with them (<http://www.safekids.org/press-release/new-study-14-parents-say-they-have-left-child-alone-inside-parked-vehicle-despite>).

Research indicates that children have been forgotten in cars by non-parental caretakers and mothers and fathers at all levels of socioeconomic status and education, including well-educated and highly responsible people, such as a physician, teacher, news reporter, judge, prosecutor, pediatrician, firefighter, dentist, hospital administrator, daycare owner and professors. Children dying in hot cars has been discussed in the media, including an article in the Washington Post which won the Pulitzer Prize: ([http://www.washingtonpost.com/wpdyn/content/article/2009/02/27/AR2009022701549\\_pf.html](http://www.washingtonpost.com/wpdyn/content/article/2009/02/27/AR2009022701549_pf.html)). Considering how widespread, fatal and tragic this phenomenon is, it is important to understand it from a scientific perspective, and more importantly, to prevent it from occurring.

### Cognitive and Neurobiological Perspectives

When I began studying forgotten children in cars in 2004, over 100 children had already died after being left in hot cars ([www.KidsandCars.org/statistics.html](http://www.KidsandCars.org/statistics.html)). Since that time, over 300 more children have died or suffered brain damage from heat stroke after being forgotten in hot cars. As a behavioral neuroscientist I have studied this phenomenon from neurobiological and cognitive perspectives. The hypotheses and conclusions I have developed are based on my scientific background, in conjunction with interviews with parents, reading of police reports, media reports and my service as an expert witness in civil and criminal cases.

My hypothesis as to how children have been unknowingly and unintentionally left in cars is described at length in my publication entitled “**When a Child Dies of Heatstroke after a Parent or Caretaker, Unknowingly, Leaves the Child in a Car: How Does it Happen and is it a Crime?**” in *Medicine, Science and the Law* (DOI: 10.1177/0025802419831529). In this peer-reviewed publication, I explained that children forgotten in cars results from: a) the driver loses awareness of the presence of the child in the car; 2) the driver exhibits a failure of the brain’s “prospective memory” system; 3) intervening events during the drive, including stressors and strong

distractions, may contribute to the cause of the failure of “prospective memory”; competition between “habit” and “prospective memory” systems.

Based on my research into these cases and my expertise in the study of the brain and memory, I have concluded that all of these cases all involve the failure of the brain’s prospective memory system. Psychologists define prospective memory by its three features: (1) the person has an intention to perform an action at a later time when circumstances permit; (2) there is a delay between forming and executing the intention, a delay which typically is filled with activities not directly related to the intended action; and (3) there is typically an absence of an explicit prompt indicating that it is time to retrieve the intention from memory—the individual must “remember to remember.” In the current context, prospective memory refers to the plan to transport a child to a location, typically daycare or to return home, which can occur during the course of a multi- or single-stop drive, or to retrieve a child from the car at the termination of a drive.

Habit memory, by contrast, refers entirely to actions going on in the present. Habit memory involves tasks with repetitive actions which are performed automatically, as in driving from one location to another, such as from home to work with minimal conscious effort. The habit memory system has been referred to as our brain’s “autopilot” system.

I also discussed the capacity for interactions between our prospective and habit memory systems to produce catastrophic outcomes in my article published in *The Conversation*, entitled: “[An epidemic of children dying in hot cars: a tragedy that can be prevented](#)”. In that article I explained how people lose awareness of children in cars and the brain memory systems that are involved in this process. Specifically, there are two independent brain memory systems with structures that are involved in prospective and habit-based memory processing. The prospective memory system involves two brain structures, the hippocampus (HC) and prefrontal cortex (PFC), which work together to optimize the conscious planning of future activities and memory multi-tasking. The habit-based memory system is based on the functioning of the basal ganglia (BG), a brain structure that enables people to accomplish well-established routine behaviors with minimal conscious effort.

A relatively benign example of BG domination over the HC-PFC system is when a person has the plan (prospective memory) to stop at a store for groceries on the way home from work. However, the person drives right past the store, oblivious to the plan to stop there for groceries. An explanation for this type of memory error is that the habit-based memory system (BG) suppressed the prospective (HC-PFC) memory system from interrupting the drive home to stop at the store. The memory of the plan to stop at the store is reactivated only when the person is exposed to a distinct cue, such as an empty refrigerator, upon returning home. The person reports that during the drive, he/she had lost awareness of the plan (and therefore forgot) to stop at the store on the way home.

The importance of prospective memory failures, however, is not always as benign as forgetting to buy groceries. There are documented examples of prospective memory-related fatal or potentially fatal tragedies: airline pilots and ground flight crew memory

errors have caused the loss of life in plane crashes, police officers have forgotten their loaded guns in public restrooms and dogs have died of hyperthermia after they were forgotten in cars.

Cases of forgotten children in cars involve a failure of the prospective memory system to function properly. An explanation for this failure is that the parent's brain habit memory system outcompetes their brain's prospective memory system. In all of the cases I've studied, the parent begins the drive with the plan to bring the child to a destination, but at some point during the drive the parent reports having lost awareness of the child in the car. In these cases the parent travels directly to the final destination (typically home or work), and in the process, exits the car without awareness that the child is still in the car.

### **Features in Common in All Cases: Impaired Prospective Memory When a Parent Loses Awareness of the Child in the Car**

Although each case involves different circumstances, they share elements in common. The primary feature which is common to all cases is that the route the person took on the day in which the child was forgotten overlapped with similar routes the parent had driven previously, or, in a subset of cases, the parent had never before driven on that route with the child. Therefore, the most important feature of these cases is that the parent depended solely on his/her prospective memory to distinguish the drive with the child on that day from similar routes the parent had driven on other days that did not include the child.

There are three categories of driving routes in cases of forgotten children in cars. The first category is a multi-stop route, in which the parent had planned on making more than one stop during a drive, one of which was to take the child to a daycare provider. In some cases, the parent/caretaker stopped to take one child to daycare, but then lost awareness of another child in the car during the next leg of the drive. Typically, the parent follows a well-traveled route to take an older child to daycare, and then follows the well-travelled route to work, and in the process, loses awareness of the second, younger, child in the car. The second category is a single-stop route, typically to take a child to a daycare provider, and then the parent had planned to drive to another destination, typically where the parent was employed. The third category is a non-stop route, in which the parent had a single destination, such as to go home or shopping, with the plan to retrieve the child from the car upon arriving at the destination. The common factor in all of these cases is that at a critical choice point along the drive, whether it was a multi-, single- or non-stop drive, all parents/caretakers report having lost awareness that the child was in the car.

### **Factors That Contribute to the Loss of Awareness of a Child in the Car**

I have studied the conditions that appear to increase the likelihood that a child will be forgotten in a car. The following are categories of influences that would impair prospective memory and would also increase the dominance of habit memory over prospective memory:

- 1) Many, but not all, of the parents report that they had a strong stress or a highly distracting experience prior to or during the drive. Neuroscience research has shown that stress has a selective adverse effect on prospective, but not habit, memory. Although not



obligatory, the stress or distracting experience helps us to understand why a subset of parents lost awareness of the child in the car.

2) As with stress, many, but not all, of the parents report that they had interrupted sleep on the night before the incident. Sleep deprivation has a selective adverse effect on prospective, but not habit, memory. Although not obligatory, sleep deprivation helps us to understand why a subset of parents lost awareness of the child in the car.

3) There is often a change in the driving route on the day of the incident that reduces the parent's awareness of the child in the car. For example, a parent may typically drive straight from home to daycare to work, but on the day of the incident, the parent changed the route, to drive, for example, from home to a fast food restaurant (for breakfast). As a result of the change in route, in conjunction with a sleeping child, the basal ganglia triggers an autopilot response to take the person directly from the fast food restaurant to work, bypassing the planned route to daycare.

4) Parents that have forgotten children often report that they had routinely interacted with their child during a typical drive, but on the day of the incident the child was unusually quiet (presumably sleeping). The change in the interpersonal dynamics between the parent and child would be identified by the basal ganglia as a day in which the child was not present in the car. Therefore, the "autopilot system" would recognize the drive with a quiet child as one without the child; in the absence of child-specific cues, the basal ganglia would direct the parent to go directly to work, rather than to daycare.

### **Factors That Reduce the Likelihood a Child Will Be Forgotten in a Car**

As noted above, approximately 25% of all parents with children under 3 reported that at some time during a drive they had forgotten (lost awareness) that their child was in the car with them. If so many parents lose awareness of children in cars, why are hot car deaths of children not more common? There are numerous factors that can interfere with the process by which a child is left in a car, or if left in a car, will reduce the likelihood the child will be harmed by heat stroke. I have observed the following influences which have been reported by parents that had lost awareness of their child during a drive, but no harm had come to the child:

1) After losing awareness of the child, parents have reported the presence of a cue, a specific reminder, that the child is in the car. The child may make a sound, or something may be in the car, such as an item, such as a diaper bag, that needs to be retrieved in the front or back seat, which jogs a parent's awareness of the child in the car.

2) Environmental conditions are highly important. The greenhouse effect (whereby the interior of a car can be 30-40 degrees hotter than the exterior) is dependent on a car having full sun exposure on a sufficiently warm day, for a sufficient period of time. There are reports of children which were unharmed after being left in cars on days that were not warm enough to cause hyperthermia. In related observations, parents have reported leaving their child in a car in a covered parking facility, which therefore would leave the car's internal temperature equal to the ambient temperature in the parking structure.

3) Timing is important. If the ambient temperature is warm enough and the car is left in full sun exposure, a child may not develop hyperthermia if a parent returns to the car in a short period of time. There is an interaction among the ambient temperature, degree of sun exposure of the car and the time a person is away from a car before the interior of the car is sufficiently hot to cause harm to the child.

4) Oftentimes the parent that had lost awareness of the child was not alone, and one or more passengers may have taken note of the presence of the child. There are documented cases, however, in which two individuals both lost awareness of the presence of the child in a car, resulting in the child dying in a hot car.

5) There are numerous reports of bystanders who removed a child from a hot car. In my experience this has happened far more often when cars are parked in high pedestrian traffic areas, such as retail shopping parking lots, than when cars are parked at home or the parent's place of employment.

### **Universal Observation of a False Memory**

An important and universal observation of the reports from these parents and caretakers is based on their activity during the day after the child is left in the car. These parents go about their daily routine, sometimes for an entire day's work and they even use the car (with the deceased child in it) during the day, without the parent having any awareness the child is in the car. These people universally report having complete confidence that the child was safe, at the location where the parent had intended on taking the child. Indeed, many parents return to the daycare expecting to retrieve their child, only to be told that the child did not arrive at daycare that day. These individuals are then horrified to learn that their child spent the entire day in their car, with fatal consequences.

It is potentially of scientific value to explore the process by which the brain somehow creates the false memory that the person has fulfilled his/her task of bringing the child to daycare, or that the child was at home. It is notable that everyday routine activities that may involve the child, such as discussing the child with others, or having a picture of the child at the parent's workplace, do not serve as reminders that the child is in the car since the brain has provided the person with the false memory that the child is safe at home or at daycare. With the false memory in place, any reminders of the child during the day are considered a routine part of a normal day. The only cues that would be relevant to reactivating the prospective memory must be cues that would specifically indicate that the child is in the car, such as a phone call from a daycare employee inquiring as to why the child had not come to daycare that day.

## Expert Witness Testimony and Service as a Science Advisor in Litigation

### Service to the Defense or State in an Advisory Role

January, 2008

#### **Defense Expert Consultant on Brain, Memory and Stress to Zwerling, Leibig & Mosely, P.C.**

Charge: Manslaughter

Commonwealth of Virginia v. Balfour

*A child died when his mother forgot him in a hot car*

September, 2010

#### **Consultant to a Prosecutor (Ron O'Brien; Columbus, Ohio) on the Brain and "Forgotten Baby Syndrome" to aid in the determination of charges (no charge, manslaughter or murder)**

*A child died when his mother forgot him in her car*

September, 2010

#### **Defense Team Expert Consultant on Brain Functioning to Captain Elizabeth A. Ramsey, US Army Trial Defense Services**

United States v. Sergeant Tina M. Laboy

*A child died when parents did not notice that their child drowned in a pool*

August, 2014

#### **Consultant to a District Attorney (Brock Belnap; St. George, Utah) on the Brain and "Forgotten Baby Syndrome" to aid in the determination of charges (no charge, manslaughter or murder)**

*A child died when her mother forgot her in her car*

February, 2016

#### **Defense Expert Consultant on Brain, Memory and Stress to Stephen Butcher**

Royal Society for the Prevention of Cruelty to Animals v Patrick Shaddock

Charge: Animal Cruelty

*A guide dog died when his caretaker left him in his car*

September, 2016

#### **Defense Expert Consultant on Brain, Memory and Stress to Dawn Priestman**

State of Arizona v. Jared Ledo, Tucson, Arizona

Charge: Manslaughter

*A child died when his father forgot him in his car*

October, 2016

#### **Defense Expert Consultant on Brain, Memory and Stress to Maddox Kilgore**

State of Georgia v. Ross Harris

Charge: Murder

*A child died when his father left him in his car*

October, 2016

**Defense Expert Consultant on Brain, Memory and Stress to Steven Secare**

State of New Jersey v. Karen Gruen

Charge: Negligence

*A parent left a child in hot car while shopping. The child was unharmed.*

December, 2016

**Defense Expert Consultant on Brain, Memory and Stress to Ron Hanes**

State of Florida v. Troy Whitaker

Charge: Manslaughter

*A child died when her father left her in his car*

December, 2017

**Defense Expert Consultant on Brain, Memory and Stress to Jennifer Moster**

State of Florida v. Steven Lillie

Charge: Manslaughter

*A child died when her father left her in his car*

October, 2018

**Defense and Prosecution Expert Consultant on Brain, Memory and Stress to David Terry/Richard Wesenberg, Jr.**

State of Florida v. Nicole Engler

Charge: Manslaughter

*A child died when her mother left her in his car*

February, 2019

**Defense Expert Consultant on Brain, Memory and Stress to Tye Harmon**

State of New Mexico v. Sandi and Mary Taylor

Charge: Manslaughter

*One child died and another became brain damaged when daycare providers left the children in their car*

**Testimony as an Expert Witness in a Criminal\* or Civil Trial**

July, 2009

\* **State of Pennsylvania v. Rimma Shvartsman**

Charge: Manslaughter

*A child died when a caretaker forgot him in a hot car*

January, 2010

**Harrison v Division of Child Services (State of Virginia)**

The State of Virginia sought to block the adoption of an infant by a father who forgot his child in a car

February, 2013

\* **State of Wyoming v. Kaleb Laatsch Gillette, Wyoming**

Charge: Criminal Negligence

*A child suffered brain damage when his father forgot him in his car*

June, 2014

- \* **Public Prosecutions v. Jayde Poole  
Bendigo, Victoria, Australia**

Charge: Manslaughter

*A child died when her mother forgot her in her car*

September, 2015

- \* **State of Texas v. Wakesha Ives  
El Paso, Texas**

Charge: Manslaughter

*A child died when her mother forgot her in her car*

August, 2016

- \* **State of Arkansas v. Wade Naramore  
Hot Springs, Arkansas**

Charge: Manslaughter

*A child died when his father forgot him in his car*

October, 2016

- \* **State of Arkansas v. Wade Naramore  
Hot Springs, Arkansas**

Charge: Negligence

*A child died when his father forgot him in his car*

December, 2016

- \* **State of Iowa Child Protective Services v. Trent Steinhart  
Des Moines, Iowa**

Charge: Child Abuse

*A parent left a child in hot car while shopping. The child was unharmed.*

August, 2017

- \* **State of Iowa v. Lance Williams**

Charge: Manslaughter

*A child died when his father forgot him in his car*

July, 2018

- \* **State of Texas v. Raymond Licon, Jr.  
El Paso, Texas**

Charge: Criminal Negligence

*A child drowned when his father forgot him in the bathtub*

July, 2018

- \* **State of Texas v. Michael Thedford  
McKinney, Texas**

Charges: Criminally Negligent Homicide, Tampering with evidence

*A child died when his father forgot her in his car*

November, 2018

- \* **Commonwealth of Pennsylvania v.  
Brittany Borgess, Williamsport, Pennsylvania**

Charges: Manslaughter, endangering a child, reckless endangerment

*A child died when her caretaker forgot her in her car*

October, 2019

- \* **State of Tennessee v. Jade Phillips**  
**Sevierville Tennessee**  
*Charge: Reckless Endangerment*  
*A child died when the father forgot him in a car*

### **Cases Pending**

- \***State of Texas v. Franke**  
*Charge: Murder*  
*Two children died of heatstroke when a mother left them in a car*
- \***State of Arizona v. Holly**  
*Charge: Child neglect*  
*A child was forgotten in a car, but was not harmed*
- \***State of California v Melendez**  
*A driver (Melendez) was charged with manslaughter after leaving a dependent passenger in a car*

### **Service as an expert in cases involving PTSD litigation**

#### **Huber v. Granby Ranch**

*Charge: Negligence*  
*A Colorado ski resort has been charged with negligence in causing the death of a ski lift rider, which resulted in PTSD in the child passengers*  
*Outcome: Pending*

#### **Wills v. Imperial Industrial Supply Co.**

*Charge: Faulty Product leading to traumatic injury*  
*Robert Wills was severely burned and developed PTSD following use of a generator manufactured by Imperial Industrial Supply Co.*  
*Outcome: settled out of court, 2019*

#### **Arcuri v. Dana Transport**

*Charge: A faulty tire assembly which separated from a truck led to PTSD and physical injury to Mr. Arcuri.*  
*Outcome: Pending*

## **Conference Presentations on the Neuropsychology of How Children are Forgotten in Cars**

March, 2018

2018 Lifesavers National Conference on Highway Safety Priorities  
“Neurobiological Perspective on How Parents Lose Awareness of Children in Cars”

September, 2019

National Highway Traffic and Safety Administration/ Department of Transportation Child Safety Passenger Safety Forum  
Lecture: “Neurobiological Perspective on Children are Forgotten in Cars”

March, 2020

Faculty of Forensic Psychiatry Annual Conference, Liverpool, England  
**Keynote Lecture: Neuropsychological and legal perspectives on tragic memory errors**

March, 2020

2020 Lifesavers National Conference on Highway Safety Priorities  
Tampa, Florida  
*Neuropsychology of Tragic Memory Failures*

## **Invited Seminars on Brain and Memory to Attorneys**

October, 2019

Office of Criminal Conflict and Civil Regional Counsel, Central Florida  
Lecture: “*Legal and Neuropsychological Perspectives on Catastrophic Memory Failures*”

July, 2020

American Council of Second Amendment Lawyers - Continuing Legal Education Seminar  
Lecture: *Neuropsychological Perspective on How Stress Affects Memory and Decision-Making*

September, 2020

Fordham Law-Psychology, SPSSI-NY, the Manhattan Psychological Association, and NYSPA Division of Forensic Psychology  
Lecture: “*At the Intersection of Law and Neurobiology: How Neuroscience Research Can Guide Legal Decisions*”

## Media Activity Reporting on My Expert Witness Testimony and My Perspectives on Children Forgotten in Cars

November, 2004

**Interactivedads.com**

*Good Dads Leaving Kids In Cars: What's causing dads to forget the kids they love?*

October 24, 2006

**Dallas Morning News**

*A child's death in a vehicle: Unthinkable, yet so real*

July, 2007

*Sentences vary when kids die in hot cars*

**Yahoo News:**

[http://news.yahoo.com/s/ap/20070728/ap\\_on\\_re\\_us/left\\_to\\_die](http://news.yahoo.com/s/ap/20070728/ap_on_re_us/left_to_die)

**Fox News:**

<http://www.foxnews.com/wires/2007Jul29/0,4670,LefttoDie,00.html>

July, 2007

**Associated Press:**

PUZZLING TRAGEDY: CHILDREN LEFT TO DIE IN CARS

<http://www.poconorecord.com/apps/pbcs.dll/article?AID=/20070729/NEWS/707290355>

January, 2008

**The Hook: COVER-**

*The perfect storm: Family tragedy plays out in court*

<http://www.readthehook.com/stories/2008/01/31/COVER-balfourtrial-REFEED-D.rtf.aspx>

August, 2008

**Cincinnati Enquirer Editorial:**

*"We must remember: Forgetting a baby's not an impossible lapse"*

<http://news.cincinnati.com/apps/pbcs.dll/article?AID=/20080822/EDIT01/808220365/1019/EDIT>

March, 2009

*INFANT HYPERTHERMIA-Baby deaths: Tragic failures of memory, not failures of love*

<http://www.parentcentral.ca/parent/article/603836>

March, 2009

**Washington Post: Fatal Distraction: Forgetting a Child in the Backseat of a Car Is a Horrifying Mistake. Is It a Crime?**

[http://www.washingtonpost.com/wp-dyn/content/article/2009/02/27/AR2009022701549\\_pf.html](http://www.washingtonpost.com/wp-dyn/content/article/2009/02/27/AR2009022701549_pf.html)

July, 2009

**Scientific Advisor and Expert Testimony on Memory and Stress to Duane, Morris, LLP**

State of Pennsylvania v. Rimma Shvartsman

*(A child died when a caretaker forgot him in a hot car)*

Fall 2009

Research Cited in: **Criminal Law** (Course Materials)

Professor Blaze, University of Tennessee, Knoxville

[http://www.law.utk.edu/course-materials/fall2009/20094\\_809\\_Blaze\\_265.pdf](http://www.law.utk.edu/course-materials/fall2009/20094_809_Blaze_265.pdf)



September, 2009

**Austin American Statesman**

Psychology professor says forgetting kids is not negligence  
Dad faces jail in hot-car tragedy

<http://www.chron.com/disp/story.mpl/hotstories/6627317.html>

<http://www.chron.com/disp/story.mpl/hotstories/6627317.html>

October, 2009

*Day care operator to stand trial*

<http://www.msnbc.msn.com/id/33322784>

December, 2009

*Day care owner will seek mental infirmity defense*

[http://www.phillyburbs.com/news/local/courier\\_times/courier\\_times\\_news\\_details/article/28/2009/december/30/day-care-owner-will-seek-mental-infirmity-defense.html](http://www.phillyburbs.com/news/local/courier_times/courier_times_news_details/article/28/2009/december/30/day-care-owner-will-seek-mental-infirmity-defense.html)

March, 2010

**Expert Witness testimony (Forgotten Baby Syndrome):  
Shvartsman v Commonwealth of Pennsylvania**

**USA Today: *Toddler's van death in jury's hands***

[http://www.philly.com/philly/news/breaking/20100319\\_Bucks\\_day-care\\_trial\\_goes\\_to\\_closing\\_arguments.html](http://www.philly.com/philly/news/breaking/20100319_Bucks_day-care_trial_goes_to_closing_arguments.html)

[http://www.buckslocalnews.com/articles/2010/03/20/the\\_advance/news/doc4ba518ofde563959778961.txt](http://www.buckslocalnews.com/articles/2010/03/20/the_advance/news/doc4ba518ofde563959778961.txt)

<http://content.usatoday.com/topics/article/Places,+Geography/States,+Territories,+Provinces,+Islands/U.S.+States/Pennsylvania/09wZ3gyezMc5Y/1>

**Philly Blurbs: *Shvartsman acquitted in tot's hyperthermia death***

[http://www.phillyburbs.com/news/news\\_details/article/92/2010/march/22/shvartsman-acquitted-in-tots-hyperthermia-death.html](http://www.phillyburbs.com/news/news_details/article/92/2010/march/22/shvartsman-acquitted-in-tots-hyperthermia-death.html)

April, 2010

**USF News: USF Experts, Pulitzer Prize Lucky Charm?**

<http://usfweb3.usf.edu/absolutenm/templates/?a=2283&z=45>

May, 2010

**Parenting Magazine: Tragedy in the Backseat: Heartbreaking stories of hot-car deaths -- and how you can avoid them**

<http://www.parenting.com/article/Baby/Health/Tragedy-in-the-Backseat-Hot-Car-Deaths/1>

April, 2010

**The Mom Houston Blog: *You could leave a baby to die in a car***

[http://blogs.chron.com/momhouston/2010/04/you\\_could\\_leave\\_a\\_baby\\_to\\_die\\_1.html](http://blogs.chron.com/momhouston/2010/04/you_could_leave_a_baby_to_die_1.html)

August, 2010

**“The Fiddler in the Subway” by Gene Weingarten; Simon and Schuster Books**

[http://books.google.com/books?id=Vx6CHHo8pz8C&pg=PA299&lpg=PA299&dq=%22david+diamond%22+memory+brain+expert&source=bl&ots=4k5JnyJsn0&sig=BAoAaJaX\\_jhuwVULqb5EFKBTkI&hl=en&ei=K2KATrbhAdC\\_gQeqoMwq&sa=X&oi=book\\_result&ct=result&resnum=4&ved=0CDIQ6AEwAw#v=onepage&q=%22david%20diamond%22%20memory%20brain%20expert&f=false](http://books.google.com/books?id=Vx6CHHo8pz8C&pg=PA299&lpg=PA299&dq=%22david+diamond%22+memory+brain+expert&source=bl&ots=4k5JnyJsn0&sig=BAoAaJaX_jhuwVULqb5EFKBTkI&hl=en&ei=K2KATrbhAdC_gQeqoMwq&sa=X&oi=book_result&ct=result&resnum=4&ved=0CDIQ6AEwAw#v=onepage&q=%22david%20diamond%22%20memory%20brain%20expert&f=false)

October, 2010

**Fox News 21/27 Roanoke, VA**

Mom Shares Tragedy of Leaving Son in Car

[http://www.fox2127.com/dpp/news/metro/10.07.2010\\_wfxr\\_news\\_mom-shares-tragedy-of-leaving-son-in-car](http://www.fox2127.com/dpp/news/metro/10.07.2010_wfxr_news_mom-shares-tragedy-of-leaving-son-in-car)

March, 2011

**Lawyers in Rochester.com:**

What in hell is wrong with this picture? why is this not going up for manslaughter?

<http://lawyersinrochester.com/what-in-hell-is-wrong-with-this-picture-why-is-this-not-going-up-for-manslaughter-she-forgot-her-child-but.html>

May, 2011

Participation in a Film Documentary on Forgotten Baby Syndrome:  
“*Stop all the Clocks*” (Mahjong Pictures)

June, 2011

**Healthy State.org**

How Loving Parents Can Leave Their Kids in a Hot Car

<http://healthystate.org/archives/12678>

**Kansas City Star**

Danger of kids left in hot cars could grow worse

<http://www.kansascity.com/2011/05/31/2917758/danger-of-kids-left-in-hot-cars.html#storylink=misearch>

**The Korea Herald**

Number of kids dying in hot cars spikes

<http://www.koreaherald.com/national/Detail.jsp?newsMLId=20110609000866>

August, 2011

**New England Cable News**

Painful tragedy gives Cape Coral father purpose

[http://www.necn.com/08/29/11/Painful-tragedy-gives-Cape-Coral-father-landing\\_health.html?&apID=8a38406cadf14fea8b201271c99b79a5](http://www.necn.com/08/29/11/Painful-tragedy-gives-Cape-Coral-father-landing_health.html?&apID=8a38406cadf14fea8b201271c99b79a5)

September, 2011

**Kids and Cars.org**

Memory and Brain Expert Addresses Federal Government on “*Forgotten Baby Syndrome*” to help prevent hot car tragedies

<http://www.kidsandcars.org/upload/press-release/PR-09-23-11.pdf>

October, 2011

**Healthy News From Florida Public Media**

**How Loving Parents Can Leave Their Kids in a Hot Car**

<http://healthystate.org/archives/12678>

October, 2011

**Florida Department of Transportation**

Forgetting a Child —How Can this Happen?

<http://www.dot.state.fl.us/PublicInformationOffice/districtnewsletters/d7fall11.pdf>

July, 2012

**CNN Living/Parenting**

Tragedy in the backseat: Hot-car deaths

<http://www.cnn.com/2012/07/12/living/hot-car-deaths-parenting/index.html>

February, 2013

Expert Witness Testimony: State of Wyoming v. Kaleb Laatsch

**Man found guilty of child endangerment**

<http://www.gillette newsrecord.com/stories/Laatsch-found-guilty-of-child-endangerment.86394>

March, 2013

**Gillette News Record**

Man found guilty of child endangerment

<http://www.gillettenewsrecord.com/stories/Laatsch-found-guilty-of-child-endangerment.86394/>

October, 2013

**The AUSTRALIAN: Boy dies inside car after dad's memory lapse**

<http://www.theaustralian.com.au/news/nation/boy-dies-inside-car-after-dads-memory-lapse/story-e6frg6nf-1226732566622>

December, 2013

**Australian Broadcasting Corporation**

The lethal consequences of forgetting young children in cars

<http://www.abc.net.au/7.30/content/2013/s3916750.htm>

January, 2014

**Herald Sun News - Australia**

What happened when a mum forgot her baby was in the car

<http://www.heraldsun.com.au/news/law-order/what-happened-when-a-mum-forgot-her-baby-was-in-the-car/story-fni0fee2-1226810417252>

May, 2014

**Global News**

What kind of person could forget a child in a car? Anyone, experts say

<http://globalnews.ca/news/1356247/what-kind-of-person-could-forget-a-child-in-a-car-anyone-experts-say/>

June, 2014

**Contemporary Pediatrics**

"Good parents" denial puts kids at risk for heat stroke

<http://contemporarypediatrics.modernmedicine.com/contemporary-pediatrics/news/good-parents-denial-puts-kids-risk-heat-stroke?page=full>

**Parents Magazine**

You'd Never Forget Your Child In The Car, Right?

<http://www.parents.com/baby/safety/car/danger-of-hot-car-for-children/>

July, 2014

**CNN – Breaking News**

After leaving a child in a car, 'that pain...never goes away'

<http://www.cnn.com/2014/07/03/us/hot-car-deaths/>

**CNN – Breaking News**

Op-ed: Can parents really forget kids in cars?

David Diamond is a neuroscientist and frequent consultant on Forgotten Baby Syndrome cases. He says parents forget kids in cars when their memory systems clash. He also explains how flawed memory could have played a role in Justin Ross Harris' case

[http://www.hlntv.com/article/2014/06/30/cooper-harris-child-dies-hot-car-why-parents-forget?hpt=hln10\\_1](http://www.hlntv.com/article/2014/06/30/cooper-harris-child-dies-hot-car-why-parents-forget?hpt=hln10_1)

**HLN NOW**

This is how a parent can forget a kid in the car - A psychology professor explains how parents can forget their children in the car

<http://www.hlntv.com/video/2014/07/11/forgotten-baby-syndrome-hot-car-study>

### **NBC Today Show: Parents recall daughter's tragic hot car death**

Kristie Reeves-Cavaliero and Brett Cavaliero join TODAY to talk about losing their daughter when they accidentally left her in a hot car, and their efforts to prevent similar deaths. Dr. David Diamond joins to help viewers understand how a parent could forget a child.

<http://www.today.com/video/today/55642762/#55642762>

### **ABC Eyewitness News: KidsAndCars.org launches White House petition drive to prevent needless child deaths in hot vehicles**

KidsandCars.org works with David Diamond, Ph.D., a neuroscientist at the University of South Florida who studies the brain and memory, including people who have unknowingly forgotten children.

<http://abc7.com/family/petition-aims-to-prevent-child-deaths-in-hot-cars/184019/>

### **Technology That Prevents Death**

Forgotten Baby Syndrome is real. David Diamond, PhD discusses here this syndrome and its role in vehicular heat stroke.

<http://www.thebadassbreastfeeder.com/>

### **WTSP-TV CBS Tampa**

#### **Science behind parents leaving kids in cars**

<http://www.wtsp.com/story/news/local/2014/07/15/science-behind-parents-leaving-kids-in-hot-cars/12691899/>

### **Kids group wants White House to address hot-car deaths**

<http://www.autoblog.com/2014/07/14/kids-group-wants-white-house-address-hot-car-deaths/>

KidsandCars.org works with David Diamond, Ph.D., a neuroscientist at the University of South Florida who studies the brain and memory, including people who have unknowingly forgotten children.

### **Health News Florida**

Hot Car Deaths: Tragedy or a Crime?

<http://health.wusf.usf.edu/post/hot-car-deaths-tragedy-or-crime>

When a child dies people feel someone should pay the price," said Dr. David Diamond, a professor of neuroscience at the University of South Florida. He studies memory and forgetting. He thinks parents leaving their kids in cars is a tragedy, but he doesn't think it's a crime.

### **Mother of Ridgefield Boy Who Died In Hot Car Speaks Out**

**Fox News - CT**

<http://foxct.com/2014/07/31/mother-of-ridgefield-boy-who-died-in-hot-car-speaks-out/>

Rogers-Seitz started reading anything she could get her hands on about child heatstroke in cars. She talked to nonprofit advocacy groups such as KidsAndCars.org, read what experts such as David Diamond, a psychology professor at the University of South Florida, have written about a phenomenon

known as Forgotten Baby Syndrome, and studied the legislative stops and starts to try and save lives.

**Dr. Sara responds to reader comments on Forgotten Baby Syndrome**

<http://www.bundoo.com/community-blog/dr-sara-responds-to-reader-comments-on-forgotten-baby-syndrome/>

Dr. Diamond is arguably the national expert on Forgotten Baby Syndrome. His research formed the basis of the article

**'Forgotten baby syndrome': expert witness called in Jayde Poole baby in car death case**

Giving evidence via videolink from the US as a defence witness, neuroscientist Professor David Diamond, an expert on memory from the University of South Florida, told a Supreme Court jury on Wednesday that the case was similar to a phenomenon known as “forgotten baby syndrome”.

Professor Diamond said 200 children had died worldwide over the past 15 years from the phenomenon after being left behind in cars.

<http://www.theage.com.au/victoria/forgotten-baby-syndrome-expert-witness-called-in-jayde-poole-baby-in-car-death-case-20140723-zw06r.html#ixzz38HoXwg4Y>

<http://www.heraldsun.com.au/news/law-order/experts-say-jayde-poole-may-have-suffered-forgotten-baby-syndrome-when-she-left-her-baby-in-fatally-hot-car/story-fniofee2-1226998939674>

**Jayde Poole found not guilty over death of baby Bella, who died after being forgotten in a hot car**

<http://www.heraldsun.com.au/news/law-order/jayde-poole-found-not-guilty-over-death-of-baby-bella-who-died-after-being-forgotten-in-a-hot-car/story-fniofee2-1227000198424?nk=9e4da9b6193cf727f62c9136fd803c07>

[http://www.mamamia.com.au/news/jayde-poole-forgotten-baby-syndrome/?utm\\_source=feedburner&utm\\_medium=%24{email}&utm\\_campaign=Feed%3A+typepad%2FKsWc+%28%24{Mamamia+-+rss}%29](http://www.mamamia.com.au/news/jayde-poole-forgotten-baby-syndrome/?utm_source=feedburner&utm_medium=%24{email}&utm_campaign=Feed%3A+typepad%2FKsWc+%28%24{Mamamia+-+rss}%29)

Professor Diamond told the court the short drive to and from Hungry Jack's was one Ms Poole had done many times before so her dominant brain system, known as basal ganglia, would have put her in auto-pilot mode.

**Neuroscientist David Diamond explains forgotten baby syndrome on The Today Show (Australia)**

<http://www.youtube.com/watch?v=KtjCWDvrQLs>

**The World Today – ABC News Australia**

**'Forgotten Baby Syndrome' could explain Bendigo manslaughter case**

<http://www.abc.net.au/worldtoday/content/2014/s4053707.htm>

An American neuroscientist says a Victorian woman whose baby died after being left in a hot car had suffered a case of the little known "Forgotten Baby Syndrome"

### **The Wichita Eagle**

#### **Hot-car deaths could happen to any parent, experts say**

"These tragedies are unfortunately occurring on a regular basis," said David Diamond, a neuroscientist and professor at the University of South Florida who has been researching vehicular child hyperthermia deaths for the past 10 years. <http://www.kansas.com/2014/07/26/3569471/hot-car-deaths-can-happen-to-any.html>

### **WTSP-TV CBS Tampa**

#### **Science behind parents leaving kids in cars**

<http://www.wtsp.com/story/news/local/2014/07/15/science-behind-parents-leaving-kids-in-hot-cars/12691899/>

### **Health News Florida**

Hot Car Deaths: Tragedy or a Crime?

<http://health.wusf.usf.edu/post/hot-car-deaths-tragedy-or-crime>

When a child dies people feel someone should pay the price," said Dr. David Diamond, a professor of neuroscience at the University of South Florida. He studies memory and forgetting. He thinks parents leaving their kids in cars is a tragedy, but he doesn't think it's a crime.

### **Automobile Alliance Decals Remind Parents of Hot-Car Dangers**

In a news conference, acting NHTSA Administrator David Friedman said the current technology "just isn't reliable enough" for the agency's seal of approval. <http://associationsnow.com/2014/07/automobile-alliance-reminds-parents-hot-car-dangers-decals/>

### **CNN Opinion**

#### **I, too, left my child in a hot car**

<http://www.cnn.com/2014/06/25/opinion/hostin-hot-car-child/>

"It's reasonable to call this an epidemic," says memory expert David Diamond, a scientist at the Veterans' Hospital in Tampa, Florida, who is often consulted on such cases. "It happens, on average, once a week from spring to early fall."

August, 2014

### **Shelbyville Times-Gazette**

Kids, hot cars are deadly combination

<http://www.t-g.com/story/2105969.html>

### **WWL.com AM870 News-Talk-Sports**

Tommy Tucker: Kids Left in Hot Cars

<http://audio.wwl.com/a/95225873/8-4-7-10am-tommy-kids-forgotten-in-hot-cars.htm>

Tommy talks to Dr. David Diamond, a neuroscientist and memory expert, about how people can forget and leave their kids in a car

### **The Kansas City Star**

KC agencies reach out to parents to help them keep kids out of hot cars

<http://www.kansascity.com/news/local/article1183929.html>

### **The Ridgefield Press**

Mother speaks out to prevent child heatstroke deaths

<http://www.theridgefieldpress.com/33843/mother-speaks-out-to-prevent-child-heatstroke-deaths/>

### **Hot car deaths spur invention to remind parents**

[http://www.hutchnews.com/news/local\\_state\\_news/tragic-deaths-lead-to-life-saving-inventions/article\\_96e101d8-29ab-538b-86a4-7c9477cce7ed.html](http://www.hutchnews.com/news/local_state_news/tragic-deaths-lead-to-life-saving-inventions/article_96e101d8-29ab-538b-86a4-7c9477cce7ed.html)

August, 2015

### **'Expert witness', family of Naramore testify in hot car death trial**

<http://katv.com/news/local/expert-witness-family-of-naramore-testify-in-hot-car-death-trial>

### **Defense calls neuroscientist in Naramore hot car death case**

<http://www.arktimes.com/ArkansasBlog/archives/2016/08/18/defense-calls-neuroscientist-in-naramore-hot-car-death-case>

### **Judge found not guilty of negligent homicide in death of son in hot car; Arkansas Democrat-Gazette**

<http://www.nwaonline.com/news/2016/aug/19/hot-car-death-trial-sister-law-talks-forgetting-ch/>

September, 2015

### **Social media divided in support for mom who left baby in shopping cart**

<http://pix11.com/2015/09/01/social-media-divided-in-support-for-mom-who-left-baby-in-shopping-cart/>

### **Expert witness testifies on 'Forgotten Baby Syndrome**

<http://www.kfoxtv.com/news/features/top-stories/stories/Expert-witness-testifies-on-39-Forgotten-Baby-Syndrome-39-206134.shtml#.Vgw7dCs96W4>

### **ExpertPages Blog**

Mother Convicted for Leaving Infant in a Hot Car uses Psychology Expert Witness; Colin Holloway, Attorney at Law

<https://blog.expertpages.com/general/mother-convicted-for-leaving-infant-in-a-hot-car-uses-psychology-expert-witness.htm>

October, 2015

**Mother sentenced to probation in baby's hot car death**

<http://www.kfoxtv.com/news/features/featured/stories/Mother-sentenced-to-probation-in-baby-s-hot-car-death-225625.shtml#.VkSUKysY11E>

November 22, 2015

**Could you forget your baby?**

<https://au.news.yahoo.com/sunday-night/features/a/30153185/could-you-forget-your-baby/?cmp=st>

January 3, 2016

**Keyless ignition unintended consequences can be deadly**

<http://www.hayspost.com/2016/01/03/keyless-ignition-unintended-consequences-can-be-deadly/>

June 20, 2016

**The Conversation: An epidemic of children dying in hot cars: a tragedy that can be prevented**

<https://theconversation.com/an-epidemic-of-children-dying-in-hot-cars-a-tragedy-that-can-be-prevented-60909>

**The Jerusalem Post: Who Leaves a Baby in a Hot Car?**

<http://www.jpost.com/Blogs/Learners-Permit/Who-Leaves-a-Baby-in-a-Hot-Car-460730>

**ABC News; 'Forgotten Baby Syndrome': A Parent's Nightmare of Hot Car Death**

<http://abcnews.go.com/Lifestyle/forgotten-baby-syndrome-parents-nightmare-hot-car-death/story?id=40431117>

August, 2016

**Expert doesn't believe Harris intentionally left son in car to die**

<http://www.ajc.com/news/news/local/expert-doesnt-believe-harris-intentionally-left-so/nsJJG/>

**Two years after the death of his son Cooper, Justin Ross Harris is going on trial for murder.**

**The Atlanta Journal-Constitution; Breakdown (podcast)**

<http://breakdown.myajc.com/episode/episode-7/>

September, 2016

**HOT CARS Act of 2016 Introduced Today Will Prevent Child Heatstroke Deaths by Getting Much-Needed Technology into Vehicles**

<http://www.kidsandcars.org/2016/09/15/hot-cars-act-of-2016-introduced-today-will-prevent-child-heatstroke-deaths-by-getting-much-needed-technology-into-vehicles/>

Washington, D.C. (September 15, 2016) – Today, U.S. Representatives Tim Ryan (D-13<sup>th</sup> OH), Peter King (R-2<sup>nd</sup> NY) and Jan Schakowsky (D-9<sup>th</sup> IL) introduced the Helping Overcome Trauma for Children Alone in Rear Seats Act (HOT CARS Act of 2016, H.R.



6041), a critical piece of legislation that would prevent children from being needlessly killed and injured when left alone in vehicles.

Dr. David Diamond, a professor in the Departments of Psychology, Molecular Pharmacology and Physiology at the University of South Florida, said, "We must have a system that provides a reminder to parents of the presence of a child in the backseat for that rare occasion when a child's life is in danger because parents, through no fault of their own, lose awareness of the presence of their child in the car."

**Memory researcher: Charges too harsh against father of boy who died in car**

<http://www.fox13news.com/news/local-news/205099562-story>

**TAMPA (FOX 13)** - It's a story stirring controversy between parents. Last week, a Hillsborough County firefighter was charged with aggravated manslaughter after [allegedly leaving his 2-year-old inside a hot car](#), leading to the child's death.

"There are lots of things we forget. We forget material objects. We forget appointments. But we don't forget our children in cars," Diamond explained. It's a thought process Professor David Diamond used to believe himself, but the USF psychology professor and memory scientist has changed his tune after extensive research into how the brain snaps into autopilot during everyday life.

**Expert in 'forgotten baby syndrome' says parents' loss of awareness can be tragic**

<http://www.placead.tampabay.com/news/publicsafety/expert-in-forgotten-baby-syndrome-says-parents-loss-of-awareness-can-be/2293194>

November, 2016

**Harris verdict could spur more hot-car death prosecutions**

<http://www.cnn.com/2016/11/17/us/justin-ross-harris-verdict-impact/index.html/>

January, 2017

**Ross Harris launches appeal of murder conviction**

The Atlanta Journal-Constitution

<http://www.myajc.com/news/local/ross-harris-launches-appeal-murder-conviction/Hbuss1IPrWoSQJl6zaOn9N/>

January, 2017

**Dateline NBC; Unimaginable: Forgotten Baby Syndrome?**

<http://www.nbcnews.com/dateline/video/unimaginable-forgotten-baby-syndrome-852859459589>

**Did Ross Harris, Hot Car Murderer, Suffer From 'Forgotten Baby Syndrome'?**

<https://2paragraphs.com/2017/01/did-ross-harris-hot-car-murderer-suffer-from-forgotten-baby-syndrome/>

March, 2017

**Why do children get left in hot cars?**

10News WTSP

<http://www.wtsp.com/news/local/why-do-children-get-left-in-hot-cars/417054969>

**The World Today: Victorian coroner investigating 2015 inadvertent child car death**

<http://www.abc.net.au/worldtoday/content/2016/s4639723.htm>

**The hot car death epidemic: 37 children die every Summer after being forgotten in vehicles by their parents - as experts warn it could easily happen to YOU**

<http://www.dailymail.co.uk/news/article-4283806/Anyone-forget-child-hot-car-expert-says.html#ixzz4ghj6zoJA>

Diamond said, 'Many strategies have been suggested ... but most people refuse to take any precautionary measures because they believe this could never happen to them, a potentially fatal mistake.'

<http://www.dailymail.co.uk/news/article-4283806/Anyone-forget-child-hot-car-expert-says.html#ixzz4ghjRo840>

June, 2017

**ABC Action News: Mourning families lobby for new rules to battle 'Forgotten Baby Syndrome' Existing technology could warn forgetful parents**

<http://www.abcactionnews.com/news/local-news/mourning-families-lobby-for-new-rules-to-battle-forgotten-baby-syndrome>

**News Conference on the Introduction of the HOT CARS Act of 2017**

<http://saferoads.org/2017/06/07/media-advisory-child-safety-news-conference-with-live-webcast-on-67/>

Washington, D.C. (June 7, 2017) – Today, U.S. Representatives Tim Ryan (D-13<sup>th</sup> OH), Peter King (R-2<sup>nd</sup> NY) and Jan Schakowsky (D-9<sup>th</sup> IL) introduced the [Helping Overcome Trauma for Children Alone in Rear Seats Act](#) (HOT CARS Act of 2017, H.R. 2801), a critical piece of legislation that would prevent children from being needlessly killed and injured when unknowingly left alone in vehicles.

Dr. David Diamond, a professor in the Departments of Psychology, Molecular Pharmacology and Physiology at the University of South Florida, said, “We must have a system that provides a reminder to parents of the presence of a child in the backseat for that rare occasion when a child’s life is in danger because parents, through no fault of their own, lose awareness of the presence of their child in the car.”

**News4Washington: 'We Can Stop This': Hot Cars Act Aims to End Accidental Deaths of Children**

For the past 12 years, Dr. David Diamond has studied the brain, memory and why parents accidentally leave children in hot cars. He said at a news conference Wednesday that two brain structures compete: those that control the ability to plan to do something

in the future and those that follow "auto-pilot" habits. When people are stressed or sleep-deprived, the auto-pilot system can dominate.

"This phenomenon must be explained from a brain science perspective, not one that blames parents for being negligent," he said in a statement.

['We Can Stop This': Hot Cars Act Aims to End Accidental Deaths of Children | NBC4 Washington](http://www.nbcwashington.com/news/health/We-Can-Stop-This-Hot-Cars-Act-Aims-to-End-Accidental-Deaths-of-Children-427091213.html#ixzz4jRAT8y3w) <http://www.nbcwashington.com/news/health/We-Can-Stop-This-Hot-Cars-Act-Aims-to-End-Accidental-Deaths-of-Children-427091213.html#ixzz4jRAT8y3w>

### **NCL statement in support of HOT CARS Act of 2017 to prevent child heatstroke deaths by getting much-needed technology into vehicles**

[http://www.nclnet.org/hot\\_cars\\_act](http://www.nclnet.org/hot_cars_act)

The HOT CARS Act would require the U.S. Department of Transportation to issue a final rule requiring cars to be equipped with a system to alert the driver if a passenger remains in the back seat when a car is turned off.

Dr. David Diamond, a professor in the Departments of Psychology, Molecular Pharmacology and Physiology at the University of South Florida, spoke about how the brain works and how leaving a child in a car can happen to the best of parents or caregivers.

### **NewsItaliane: Arezzo shock, forgotten child in the car dies: From his mother a heartrending cry”**

<https://www.newsitaliane.it/2017/arezzo-shock-bambina-un-anno-mezzo-muore-dimenticata-auto-dalla-madre-107358>

A one year old daughter died of cardiac arrest after being forgotten in a closed car in Castelfranco di Sopra (Italy).

Dr. David Diamond ... has dedicated his career to research on the neurobiological aspects of FBS.

### **Not All Babies Are Forgotten**

<http://www.kars4kids.org/blog/not-babies-forgotten/>

I decided to ask Dr. David Diamond what he thought. Considered the expert on forgotten babies, Diamond speaks and writes extensively on the subject, and has testified in trials of parents whose babies died in hot cars.

Diamond, incredibly, responded, suggesting that since the catchphrase is not always well-received and since, “leaving a child in a car is not an act of brain damage or pathology,” he no longer uses the phrase Forgotten Baby Syndrome.

### **Hot Cars Act May Help Stop 'Forgotten Baby Syndrome'**

**Podcast - LISTEN LIVE WUSF 89.7 ; On Point with Tom Ashbrook**

<http://wusfnews.wusf.usf.edu/post/hot-cars-act-may-help-stop-forgotten-baby-syndrome#stream/o>

July, 2017

**Editorial: Hot cars and children don't mix**

[http://www.eacourier.com/opinion/editorials/editorial-hot-cars-and-children-don-t-mix/article\\_c2030ba0-515e-11e7-b628-ab892a49ad31.html](http://www.eacourier.com/opinion/editorials/editorial-hot-cars-and-children-don-t-mix/article_c2030ba0-515e-11e7-b628-ab892a49ad31.html)

**Psychologists explain how parents can forget kid in the back of a car**

<http://www.abc15.com/news/state/psychologists-explain-how-parents-can-forget-kid-in-the-back-of-a-car>

**Sick, Absent, or Forgotten? How a Change in Routine Can Become Deadly in Minutes**

<https://usa.childcareaware.org/2017/07/sick-absent-forgotten-change-routine-can-become-deadly-minutes/>

In Gene Weingarten's Pulitzer prize-winning piece about vehicular heatstroke tragedies, "[Fatal Distraction](#)," Dr. David Diamond, a neurobehavioral scientist, deduced from his research of vehicular heatstroke deaths that the most common factor associated with parents who forgot their child in the backseat was a change in routine.

August, 2017

**Summer Heat Turns Cars Into Ovens**

<https://share.kaiserpermanente.org/article/>

**Expert: Dad "lost awareness" of son**

<http://www.weareiowa.com/news/local-news/expert-dad-lost-awareness-of-son-in-hot-car/790521214>

**Judge to decide fate of man in hot car death trial**

<http://www.kcci.com/article/judge-to-decide-fate-of-man-in-hot-car-death-trial/12022620>

July, 2018

**EPPD officer Licon not guilty in baby's bathtub drowning**

<https://www.kvia.com/crime/breaking-licon-not-guilty-in-baby-s-bathtub-drowning/770352491>

November, 2018

**Jury: Woman acquitted of charges for death of child left in hot car**

<http://www.sungazette.com/news/top-news/2018/11/jury-woman-acquitted-of-charges-for-death-of-child-left-in-hot-car/>

Dad's girlfriend who left little girl inside hot car is acquitted on most charges & given \$25 fine, community outrage intensifies

<https://www.crimeonline.com/2018/11/14/dads-girlfriend-who-left-little-girl-inside-hot-car-is-acquitted-on-most-charges-given-25-fine-community-outrage-intensifies/>

**March 2019**

**Hot car deaths: Study describes psychological and neural basis of how people make fatal errors**

<https://www.kidsandcars.org/2019/03/05/hot-car-deaths-study-describes-psychological-and-neural-basis-of-how-people-make-fatal-errors/>

More than 50 children died in hot cars in 2018, making it the deadliest year on record. Many of the cases involve parents who unknowingly left a child behind, often for an entire day. University of South Florida Psychology Professor David Diamond has studied this phenomenon for over a decade and has served as an expert witness on many high-profile cases. In his latest publication, he describes the psychological and neural basis of how responsible people make such fatal errors.

**March 2019**

**USF professor says memory system failures in the brain cause people to leave kids in cars**

<https://www.abcactionnews.com/news/region-hillsborough/usf-professor-says-memory-system-failures-in-the-brain-cause-people-to-leave-kids-in-cars>

**July 2019**

**Father Tries to Grasp How He Could Have Left Twins to Die in Hot Car**

<https://www.nytimes.com/2019/07/29/nyregion/twins-hot-car-father.html>

**July, 2019**

**Statement for House Hearing “Legislation to Make Cars in America Safer”**

<https://saferoads.org/2019/07/23/statement-for-house-hearing-legislation-to-make-cars-in-america-safer/>

While it may be unthinkable that a child, especially an infant or toddler, could be left in a car, it is an all-too-frequent problem. Neuroscience experts and other scientific researchers have shown that common circumstances such as work demands, stress, fatigue or change in routine can all lead to this injurious and deadly outcome. According to Dr. David Diamond, Professor in the Departments of Psychology, Molecular Pharmacology and Physiology at the University of South Florida, “This phenomenon must be explained from a brain science perspective, not one that blames parents for being negligent.”<sup>[3]</sup> (See Attachment B.)

**August, 2019**

**There's science behind why parents leave kids in hot cars**

<https://www.usatoday.com/story/news/health/2019/08/02/hot-car-deaths-why-they-keep-happening-and-how-stop-them/1861389001/>

**June 2020**

**Phoenix and Luna: After father's guilty plea in twins' hot-car deaths, an expert speaks out**

<https://www.lohud.com/story/news/local/rockland/2020/06/25/expert-hot-car-deaths-talked-father-just-after-twins-died/3249616001/>

<https://www.nytimes.com/2020/06/23/nyregion/hot-car-death-twins-bronx.html>

## Media Activity on Memory and Brain Research

November 16, 1997

**Orlando Sentinel**

*“Study finds rats forget when subjected to stress”*

November 26 – December 10, 1997

**National Public Radio, WUSF-FM**

*Stress-Memory Research Discussed on “All Things Considered”*

December 15, 1997

**Miami Herald**

*“Extreme stress inhibits brain’s ability to recall”*

Spring, 1999

**Texas Wesleyan Law Review**

Research cited in:

*“The unfortunate faith: A solution to the unwarranted reliance upon eyewitness testimony”*, by William David Gross, 5 Tex. Wesleyan Rev., 307.

August 28, 2000

**Tampa Tribune**

*“Grant Boosts Alzheimer’s Research”*

December 21, 2000

**Los Angeles Times**

*“Two Studies Give Hope for Vaccine Against Alzheimer’s”*

**Washington Post**

*“A Vaccine for Memory Loss”*

**Tampa Tribune**

*“USF Role In Alzheimer’s Work Grows”*

December 22, 2000

**Tampa Tribune (Editorial)**

*“USF’s Quest For Alzheimer’s Vaccine”*

April 17, 2001

**Reuters Health On-Line**

*“Stress impairs ability to remember and learn”*

April, 2001

**News & Comment: Trends in Neurosciences (24:199, 2001)**

*“Alzheimer’s Disease:  $\beta$ -amyloid hypothesis strengthened”*

April 24, 2001

**Tampa Tribune**

*“Researcher Links Stress and Memory”*

May 8, 2001

**Washington Post**

*“Medical Frontiers: Promising Vaccine Targets Ravager of Minds”*

June 10-17, 2001

**National Public Radio (WUSF-FM)**

*PTSD-Memory Research Discussed on “All Things Considered”*

August 6, 2001

**ABC World News Tonight**

*Emotional Impact Key to Memory*

April 15, 2003

**HealthScout.com**

*Bad Memories Block Out New Memories*

**YahooNews.com**

*Emotional trauma disrupts ability to concentrate and learn*

**The St. Petersburg Times**

*Seeking to help soldiers trapped by the trauma*

**Science BLOG**

*Intrusive emotional memories make rats forget recently learned information*

April, 2003

**Reuters Health On-Line**

*Blueberries reduce age-related mental decline in mice*

November 17, 2003

**Newswise.com**

*Neuroscientists to Present New Findings on Brain Injury and Repair*

**News at USF**

*USF Researchers Find That Stress And High Fat Diets Damage Brain Cells In Rats*

**USF Oracle Newspaper**

*Fat rats stressed and forgetful, but what does that mean for us?*

February 4, 2004

**St. Petersburg Times**

*On Campus Syllabus Watch: Scientific Racism, University of South Florida*

May, 2004

**USF Magazine**

*Rethinking the rat race*

August, 2004

**St. Petersburg Times**

*Why our memory fails us*

November 29, 2004

**USF Oracle Newspaper**

*Get over stress, not overstressed*

October 19, 2006

*Psychological stress produces PTSD-like symptoms in rats*

**USF News**

**VA Watchdog.com**

<http://www.vawatchdog.org/old%20newsflashes%20OCT%2006/newsflash10-18-2006-3.htm>

**Newswise: Science News**

<http://www.newswise.com/articles/view/524234/>

**Bio-Medicine News**

<http://www.bio-medicine.org/medicine-news/Stress-Produces-PTSD-like-Symptoms-in-Rats-15112-2/>

November, 2006

**Bradenton Herald**

*Surviving troubles without some pill*

January, 2007

**USF Magazine**

*Discovery: High Anxiety*

February, 2007

**The Franklin Institute On-Line**

*How Your Brain Responds to Stress*

**The Heartmath Company**

*Breaking the Myth that Stress Boosts Performance*

January, 2008

**Washington Post**

A Flash of Brilliance

<http://thewashingtonpost.newspaperdirect.com/epaper/viewer.aspx>

Winter, 2007

**USF Magazine: High Anxiety**

September, 2008

**L.A. Times: Fear, stress among the poor hinder learning**

<http://www.latimes.com/features/health/la-he-poverty1-2008sep01.0.3159674.story>

October, 2008

**USF Oracle –**

USF researchers closer to finding a cure for PTSD

[http://www.usforacle.com/usf\\_researchers\\_closer\\_to\\_finding\\_a\\_cure\\_for\\_ptsd](http://www.usforacle.com/usf_researchers_closer_to_finding_a_cure_for_ptsd)

<http://hscweb3.hsc.usf.edu/health/now/?p=2164>

**EurekaAlert:**

Top researchers to explore stress and anxiety, trauma, poverty and addiction

[http://www.eurekaalert.org/pub\\_releases/2008-10/aaft-trt101508.php](http://www.eurekaalert.org/pub_releases/2008-10/aaft-trt101508.php)

**AAAS: Science, Stress, and Human Health**

<http://www.aaas.org/programs/centers/pe/abelson/>

February, 2009

**Thriving Brain: Definition of Stress**

[http://www.thrivingbrain.com/brain\\_facts/stress.htm](http://www.thrivingbrain.com/brain_facts/stress.htm)

June, 2009

**Psychiatric News:**

Data Challenge Traditional Views of How Stress Affects Memory

<http://pn.psychiatryonline.org/content/44/11/local/complete-issue.pdf>

October, 2009

**Tampa Tribune**

USF study says Atkins-type diets may reduce stress

<http://www2.tbo.com/content/2009/oct/26/usf-study-says-atkins-type-diets-may-reduce-stress/>

**USF News: “American Diet” v. Atkins Diet**

<http://www2.tbo.com/content/2009/nov/02/020024/na-feeding-on-stress/>

**e! Science: “American Diet” v. Atkins Diet**

<http://esciencenews.com/sources/physorg/2009/10/19/american.diet.v.atkins.diet>

December, 2009

Sugar, Fat and Physical Therapy: Can diet affect physical therapy outcomes?

<http://physicaltherapydiagnosis.blogspot.com/2009/12/sugar-fat-and-physical-therapy.html>

February, 2010

**The USF Oracle: Study links sugar intake to stress**

<http://www.usforacle.com/study-links-sugar-intake-to-stress-1.2144586>

March, 2010

**USF Magazine; Winter 2010**

Feeling Stressed? New Research says you should step away from the ice cream



April, 2010

**Faculty awarded \$1M in Neuroscience Collaborative grants**

<http://hscweb3.hsc.usf.edu/health/now/?p=12257>

September, 2011

**APS Observer; 24,6 2011: Bringing Psychological Science to Life,  
by John Bohannon**

<http://www.psychologicalscience.org/index.php/publications/observer/2011/july-august-11/bringing-psychological-science-to-life.html>

November, 2011

**The Washington Post**

Perry's 'brain freeze,' by another name, is common 'retrieval failure'

[http://www.washingtonpost.com/national/health-science/perrys-brain-freeze-by-another-name-is-common-retrieval-failure/2011/11/10/gIQAkIoq9M\\_story.html](http://www.washingtonpost.com/national/health-science/perrys-brain-freeze-by-another-name-is-common-retrieval-failure/2011/11/10/gIQAkIoq9M_story.html)

January, 2012

**USF Health**

USF awarded \$1.57 M to study TBI, other battlefield-related conditions

<http://hscweb3.hsc.usf.edu/health/now/?p=23897>

August, 2012

National PTSD Consortium To Improve Diagnosis, Treatment

<http://www.prweb.com/releases/2012/8/prweb9789002.htm>

January, 2013

**USF news**

USF and VA researchers find long-term consequences for those suffering  
traumatic brain injury

<http://www.research.usf.edu/absolute-news/templates/template1.aspx?articleid=864&zoneid=1>

February, 2014

**Tampa Bay Times: USF investigates eye-movement therapy for PTSD**

<http://www.tampabay.com/news/health/usf-investigates-eye-movement-therapy-for-ptsd/2163851>

July, 2014

**Personal Finance**

Don't Follow the Investing Herd

<http://www.investingdaily.com/personal-finance/>

August, 2014

**Nature - News**

Spread of genes implicated in post-traumatic stress disorder – Identification of  
possible genetic markers supports trauma treatment with steroid hormone

<http://www.nature.com/news/spread-of-genes-implicated-in-post-traumatic-stress-disorder-1.15699>

April, 2017

Tampa Bay Times

Why Cops Shoot: An unprecedented review of Florida police shootings ...

<http://www.tampabay.com/projects/2017/investigations/florida-police-shootings/why-cops-shoot/>

## Invited Lectures

### Invited Lectures on the Brain, Stress and Memory

July, 1985

Max-Planck Institute for Neurobiology; Munich, Germany

*“Rapid Learning-Induced Changes in Sensory Cortical Receptive Fields”*

December, 1987

Winter Conference on Learning and Memory; Steamboat Springs, Colorado

*“Learning-Induces Changes in Sensory Tuning of Single Neurons in Auditory Cortex”*

March, 1993

University of Illinois, Urbana-Champaign, Department of Physiology

*“Effects of Stress and Corticosterone on Hippocampal Function”*

February, 1994

Winter Conference on Neural Plasticity; Grenada, West Indies

*“Impairment of Hippocampal-Dependent Memory by Stress”*

**Session Organizer and Chair: Stress and Synaptic Plasticity**

January, 1995

University of Colorado, Boulder, Department of Psychology,

*“Stress blocks LTP and Hippocampal-Dependent Memory”*

February, 1996

Winter Conference on Neural Plasticity; St. Lucia, West Indies

*“Effects of Neuroactive Steroids on Hippocampal Function”*

**Session Organizer and Chair: Steroidal Modulation of Neural Plasticity**

March, 1996

Israel Institute for Biological Research, New Frontiers in Stress Research:

Modulation of Brain Function; Zichron Ya'akov, Israel,

*“Enhancement of Memory and Electrophysiological Plasticity by Neurosteroids”*

September, 1996

Elba Intl. Neuroscience Program: Neurobiology of Stress; Isola d'Elba, Italy.

*“Stress, Synaptic Plasticity and Memory”*

March, 1997

University of South Florida, Department of Psychology

*“Effects of Stress on Hippocampal Function”*

November, 1997

International Society for Traumatic Stress Studies, 13<sup>th</sup> Annual Meeting; Montreal, Quebec, Canada.

*“Treatment Implications of Recent Neuroscience Findings in PTSD”*

April, 1998

Spring Hippocampal Conference; Grand Cayman, British West Indies,

**Session Organizer and Chair: Stress, Glucocorticoids and Hippocampal Function**

*“Stress impairs cognitive and electrophysiological measures of hippocampal function”*

- April, 2000  
Spring Hippocampal Research Conference; Grand Cayman, British West Indies  
**Session Organizer and Chair: Stress and the Hippocampus**  
*“Vulnerability of the Hippocampus to Psychological Stress”*
- June, 2000  
Psychobiology 2000, The Israeli Society for Biological Psychiatry; Haifa, Israel  
*“Progress Toward Understanding How the Hippocampus is Affected by Stress”*
- March, 2001  
20<sup>th</sup> Joint Meeting of the British Endocrine Societies; Belfast, Northern Ireland  
*“Hormones and Stress: Linking Electrophysiology and Cognition”*
- March, 2001  
Molecular Medicine Centre, University of Edinburgh, Scotland  
*“Adverse Effects of Stress on Brain Plasticity and Memory”*
- March, 2001  
Department of Psychobiology, Universidad Nacional de Educacion, Madrid, Spain  
*“Behavioral and Hormonal Modulation of Brain Plasticity and Memory”*
- April, 2001  
Federation of American Societies for Experimental Biology; Orlando, Florida  
**Session Organizer and Chair: Neurobiology of Stress, Memory, Brain Damage and Alzheimer's Disease in Animal Models**
- October, 2001  
Annual Meeting of the Memory Disorders Research Society; Boston, Massachusetts  
*“Cognitive and Neurobiological Perspectives on the Stress-Induced Enhancement and Impairment of Memory ”*
- March, 2002  
USF “Lunch with a Scholar” Program, University Club of Tampa  
*“Why Does Stress Make Us So Forgetful?”*
- April, 2002  
Spring Hippocampal Research Conference; Grand Cayman, British West Indies  
**Session Organizer and Chair: Adverse Effects of Stress on Rat and Human Hippocampus**  
*“Task- and Fear-Specific Effects on Hippocampal-Dependent Memory”*
- June, 2002  
Non-Linear Dose-Response Relationships in Biology, Toxicology and Medicine; University of Massachusetts, Amherst, Massachusetts  
**Session Chair: Biomedical Implications of Non-Linearity**  
*“U-Shaped Functions between Stress Hormones, Brain Plasticity and Memory”*
- May, 2003  
Second Annual Meeting on Non-Linear Dose Response Relationships In Biology, Toxicology and Medicine; Amherst, Massachusetts  
*“Non-Linear Relationships in Neurosteroid Effects on Memory and Brain Plasticity”*

- July, 2003  
The Physiological Society; Dublin, Ireland  
*“Cognitive and Physiological Assessment of Stress-Hippocampus Interactions”*
- September, 2003  
Annual Meeting of the European Brain and Behavior Society; Barcelona, Spain  
*“An Animal Model of Intrusive Emotional Memories”*
- February, 2004  
VA Medical Center Endocrinology Lecture Series; Tampa, Florida  
*“Opposing Actions of Low versus High Levels of Glucocorticoids on Brain and Behavior in Rats and People”*
- May, 2004  
Spring Hippocampal Research Conference; Grand Cayman, British West Indies  
*“Predator Stress Impairs Spatial Memory and Rapidly Reduces Hippocampal and Prefrontal NCAM Levels”*
- June, 2004  
Collegium Internationale Neuro-Psychopharmacologicum; Paris, France  
*“A Novel Perspective: From Preclinical Research to the Neurobiology Of Depression”*
- June, 2004  
Department of Neuroscience, University of Amsterdam, Netherlands  
*“Glucocorticoids, Synaptic Plasticity, Stress-Induced Amnesia and Hippocampal Functioning”*
- July, 2004  
The Learning-Brain Expo; Orlando, Florida  
**Keynote Speaker:** *“Why and How Does Stress Impact Memory?”*  
**Session Leader:** *“Brain Parts at the Intersection of Emotion and Memory”*
- September, 2004  
Think tank on neuroplasticity; Nice, France  
*“Tianeptine “Protects” Memories from Being Impaired by Stress”*
- January, 2005  
The Third Annual Encephale Congress; Paris, France  
**Session Chair: Neuroplasticity - The New Face of Depression**  
*“Neurobiology of Depression: Pharmacological implications”*
- March, 2005  
VA Medical Center Endocrinology Lecture Series; Tampa, Florida  
*“Interactions Among Stress, Memory, Glucocorticoids and Antidepressant Actions on The Brain”*
- June, 2005  
2005 Workshop on the Neuroendocrinology of Stress; The American Neuroendocrinology Society; San Diego, California  
*“Complex Involvement of Glucocorticoids in Stress and Antidepressant Actions on Hippocampal Functioning”*
- November, 2005  
Brain and Mind Institute, Swiss Federal Institute of Technology  
Lausanne, Switzerland  
*“How Does Stress Affect Memory and the Brain?”*

- November, 2005  
 Advances in Neuroscience for Medical Innovation: Neuronal Plasticity and Psychiatric Disorders; Nice, France  
**Session Chair: Molecular Mechanisms of Synaptic Plasticity**  
*"Hippocampus –Impact of Stress and Fear on Depression"*
- March, 2006  
 14th European Congress of Psychiatry; Nice, France  
*"Preclinical Research on Antidepressants, Stress and Memory"*
- June, 2006  
 First Annual Workshop on Stress, Memory and Brain Plasticity; Genova, Italy; **Conference Organizer**  
*"A Model of How Stress Affects Hippocampal and Amygdala Functioning"*
- June, 2006  
 Invited Seminar: Servier Pharmaceuticals; Paris, France  
*"Antidepressants, Stress and Memory"*
- September, 2006  
 4<sup>th</sup> International Workshop on Neuroplasticity; Nice, France  
*"Neurobiology of Depression: Pharmacological Implications"*
- November, 2006  
 Society for Neuroscience 35th Annual Meeting; Atlanta, Georgia  
 Symposium: Stress and neuronal excitability: molecules, receptors, pathology  
*"Complex Involvement of Glutamate and Corticosterone in the Stress-Induced Modulation of LTP and Memory"*
- January, 2007  
 The Fourth Annual Encephale Congress; Paris, France  
*"The Antidepressant Tianeptine Completely Blocks the Effects of Stress on Synaptic Plasticity, Memory, and Anxiety in Rats"*
- May, 2007  
 VA Medical Center Endocrinology Lecture Series; Tampa, Florida  
*"Glucocorticoids and PTSD in Rats and People"*
- June, 2007  
 Second Annual Workshop on Stress, Memory and Brain Plasticity; Amsterdam, Netherlands; **Conference Organizer**  
*"Understanding how the Amygdala, Hippocampus and Prefrontal Cortex Process Traumatic Memories"*
- June, 2007  
 TopSchool European Honors Student Workshop; University of Amsterdam and Leiden University  
*"A New Perspective on the Role of the Hippocampus in Traumatic Memory Formation"*
- June, 2007  
 6th Dutch Endo-Neuro-Psycho Meeting , Doorwerth, Netherlands  
*"Insight into the Neurobiology of Traumatic Memories from Predator Stressed Rats"*
- August, 2007  
 Second International Congress on Stress Research; Budapest, Hungary  
*"Predator Stress, Memory and Brain Plasticity"*

February, 2008

NOVA University, Ft. Lauderdale, Florida; Symposium on the “Plastic Brain”  
*“Neurobiological Basis of the Complex Effects of Stress on Memory”*

April, 2008

Department of Psychology and Neuroscience Program,  
University of Colorado, Boulder, Colorado  
*“A New Perspective on the Role of the Hippocampus in Traumatic Memory  
Formation”*

May, 2008

University of Wisconsin Medical School, Neuroscience Department  
Guest Lectures on the Neurobiology of Emotion and Memory

May, 2008

VA Medical Center Endocrinology Lecture Series; Tampa, Florida  
*“Animal Model of PTSD”*

July, 2008

Third Annual Workshop on the Stress, Memory and Brain Plasticity,  
Villars-sur-Ollon, Switzerland; **Conference Organizer**  
*“Neurobiology of Emotional Memory”*

July, 2008

The Learning-Brain Expo; Orlando, Florida  
*“How Can Stress Make Such Powerful Memories and Also Make us Forgetful?”*

September, 2008

Annual Meeting of the Pavlovian Society, Weehawken, New Jersey  
*“Brain Mechanisms Involved in Neoclassical Fear Conditioning”*

October, 2008

AAAS Philip Hauge Abelson Advancing Science Seminar on "Science, Stress,  
and Human Health, “*From the African Savannas to the Bench and into the  
Clinic: Translational Research in the Study and Treatment of Emotional  
Trauma*”, Washington, D.C.

April, 2009

Fourth Annual Conference on the Amygdala, Stress, and PTSD; Bethesda, MD  
*“Involvement of the Hippocampus and Amygdala in Traumatic Memories”*

July, 2009

The Learning-Brain Expo; Orlando, Florida  
*“Connecting the Neurobiology of Stress With Real World Experiences”*

October, 2009

7th International Workshop on Neuroplasticity; Nice, France  
*“Neurobiology of depression: pharmacological implications”*

June, 2010

Stress and Motivated Behavior Institute Conference on Force Effectiveness,  
Techniques and Analysis; Weehawken, NJ  
*“Influence of Predator Exposure on Memory and Hippocampal Function”*

July, 2010

VA Research in the Southeast: RFP’s to outcomes: Translating Research to  
Practice; Orlando, Florida  
*“A Translational Approach Toward the Study of PTSD: Acute Episodes of  
Inescapable Predator Exposure in Conjunction with Psychosocial Stress*

*Produces a PTSD-like Phenotype in Rats*

August, 2010  
 American Psychological Association: 118<sup>th</sup> Annual Convention;  
 San Diego, California  
*“Predator Exposure and Social Instability as an Animal Model of PTSD”*

October, 2010  
 Department of Neurobiology, University of Edinburgh, Scotland  
*“Does Stress Cause the Hippocampus to Become ‘Dysfunctional?’”*

May, 2011  
 American Psychological Society: Annual Convention; Washington, D.C.  
*“A Novel Perspective on the Neurobiology of Traumatic Memories”*

June, 2011  
 16th International "Stress and Behavior" Neuroscience and Biopsychiatry  
 Conference; New Orleans, Louisiana  
*“A Novel Perspective on the Role of the Hippocampus in Flashbulb and  
 Traumatic Memories”*

May, 2012  
 Department of Neurobiology, Stanford University  
*“Complex Effects of Stress on Brain and Memory”*

May, 2012  
 Department of Neuroscience, University of California, San Francisco  
*“Animal Model of PTSD”*

May, 2012  
 Neuro-TALK 2012, Beijing, China  
**Session Chair: Emotions, Motivation, Brain and Memory**  
*“Involvement of the Hippocampus in Traumatic Memory”*

June, 2012  
 Annual Meeting of the International Behavioral Neuroscience Society; Hawaii  
**Keynote address:** *“A Novel Perspective on the Involvement of the  
 Hippocampus in Flashbulb and Traumatic Memories”*

June, 2012  
 Cognitive Science Center of Amsterdam, Netherlands  
 Symposium on Emotional Memory  
*“Clinically Relevant Components of an Animal Model of PTSD”*

June, 2012  
 Department of Neuroscience and Pharmacology, Rudolf Magnus Institute,  
 Leiden, Netherlands  
*“Complexity of Stress, Brain, Memory Interactions”*

September, 2012  
 42nd International Society of Psychoneuroendocrinology Conference,  
 New York City, USA  
*“Animal model of PTSD based on clinically relevant features of trauma  
 susceptibility and expression”*  
 Biomarkers of PTSD: Panel Discussant

November, 2012

Fourth International Conference on Cardiac Sciences, Al Ahsi, Saudi Arabia

**Session Chair: Stress, Atherosclerosis and Coronary Heart Disease**

*“Stress as an Adaptive Process Gone Awry: How Stress in Modern Society Produces Emotional Trauma, Brain Damage and Cardiovascular Disease”*

March, 2013

FENS-SFN Neuroscience School: Synaptic stress and pathogenesis of neuropsychiatric Disorders, Bertinoro, Italy

*“A translational approach toward understanding the neurobiology of PTSD”*

April, 2013

Department of Neuroscience - Seminar Series, Pennsylvania State University

*“A Novel Perspective on the Involvement of the Hippocampus in Flashbulb and Traumatic Memories”*

May, 2013

Dept. of Comparative Biomedical Sciences, Louisiana State University

*“A Novel Perspective on the Involvement of the Hippocampus in Emotional Memories”*

September, 2012

Department of Neuroscience, University of South Dakota

*“Does Traumatic Stress Render the Hippocampus Dysfunctional?”*

December, 2013

Delaware State Neuroscience Symposium, University of Delaware

**Keynote Lecture:** *“A Novel Perspective on the Involvement of the Hippocampus in Emotional Memories”*

January, 2014

Gordon Research Conference: Predator-Prey Interactions - From Genes to Ecosystems to Human Mental Health;

**Keynote Lecture:** *“Predator-Prey Interactions as the Basis for Understanding the Adverse Effects of Stress on Brain and Behavior”*

April, 2015

Department of Psychology, New Mexico State University

*“Involvement of the hippocampus in flashbulb memories”*

June, 2015

5th International Regional Neuroscience and Biological Psychiatry Conference (North America) "Stress and Behavior"

**Keynote Lecture:** *Translational Approach Toward Understanding the Biology of PTSD”*

June, 2015

Suncoast Behavioral Health Center, Bradenton, Florida

*“Understanding PTSD from Biological, Cognitive and Evolutionary Perspectives”*

July, 2015

First annual conference of the International Society of Accelerated Resolution Therapy (IS-ART), Tampa, Florida

*“Understanding the Effectiveness of Accelerated Resolution Therapy (ART) in the Context of the Neurobiology of PTSD”*



August, 2016

Multidisciplinary Conference on PTSD  
Memorial University, Newfoundland, Canada

**Plenary Lecture:** *Beneath the Surface of the PTSD Iceberg: Evolutionary, Neurobiological and Physiological Perspectives on PTSD*

Session Lecture: *Integrating predator exposure research in a broader framework for understanding hippocampal involvement in trauma memory processing*

April, 2017

Tulane Brain Institute, Neuroscience Program, New Orleans, Louisiana  
“*Involvement of the hippocampus in flashbulb memories*”

March, 2018

2018 National Conference on Highway Safety Priorities  
“*Neurobiological Perspective on How Parents Lose Awareness of Children in Cars*”

September, 2019

National Highway Traffic and Safety Administration/ Department of Transportation Child Safety Passenger Safety Forum  
Lecture: “*Neurobiological Perspective on Children are Forgotten in Cars*”

October, 2019

Office of Criminal Conflict and Civil Regional Counsel, Central Florida  
Lecture: *Legal and Neuropsychological Perspectives on Catastrophic Memory Failures*

March, 2020

Office of Criminal Conflict and Civil Regional Counsel, Central Florida  
Lecture: *Legal and Neuropsychological Perspectives on Catastrophic Memory Failures*

March, 2020

Faculty of Forensic Psychiatry Annual Conference, Liverpool, England  
**Keynote Lecture: Neuropsychological and legal perspectives on tragic memory errors**

March, 2020

2020 Lifesavers National Conference on Highway Safety Priorities  
Tampa, Florida  
*Neuropsychology of Tragic Memory Failures*

September, 2020

Fordham Law-Psychology, SPSSI-NY, the Manhattan Psychological Association, and NYSPA Division of Forensic Psychology.

Lecture: “*At the Intersection of Law and Neurobiology: How Neuroscience Research Can Guide Legal Decisions*”

September, 2020

**American Council of Second Amendment Lawyers - Continuing Legal Education Seminar**

Lecture: “*Neuropsychological Perspective on How Stress Affects Memory and Decision-Making*”

February, 2021

Neuroscience Center for Anxiety, Stress, and Trauma, Wayne State University  
Lecture: "How is the Hippocampal Functioning Affected by Stress?"

## Research on Nutrition, Obesity and Heart Disease

### Invited Presentations

June, 2010

VA Hospital Endocrinology Lecture Series; Tampa, Florida  
*"Myths and Mischief in Nutritional and Pharmacological Recommendations for Patient Care"*

April, 2011

USF Distinguished Lecture Series: "Dinner with a Scholar"  
*"Myths and Misinformation About Saturated Fat and Cholesterol: How Bad Science and Big Business Created the Obesity Epidemic"*

June, 2011

J.A. Haley Veterans Hospital Endocrinology Lecture Series; Tampa, Florida  
*"Banting-Atkins Diet, Instead of Medication, as an Effective Treatment for Obesity, Heart Disease and Type II Diabetes"*

May, 2012

Center for Obesity, Assessment, Study, and Treatment (COAST),  
University of California, San Francisco  
*"Myths and Deception in Research on Cholesterol and Dietary Fat: How Bad Science, Government Intervention and Big Business Contributed to the Obesity Epidemic"*

November, 2012

Fourth International Conference on Cardiac Sciences, Al Ahsa, Saudi Arabia  
**Session Chair: Stress, Atherosclerosis and Coronary Heart Disease**

Talk 1: *"A Critical Appraisal of Current Dietary Guidelines: How Bad Science, Politics and Profits Contributed to the Obesity and Heart Disease Epidemics"*

Talk 2: *"A Rigorous Assessment of Claims that Cholesterol-Reducing Treatments are Safe and Effective at Reducing Cardiovascular Outcomes and Mortality"*

April, 2013

Dept. of Biobehavioral Health and Pharmacology, Pennsylvania State University  
*"A Critical Appraisal of Current Dietary Guidelines: How Bad Science, Politics and Profits Contributed to the Obesity Epidemic"*

September, 2013

Department of Internal Medicine, College of Medicine, Univ. of So. Dakota  
*"A Rigorous Assessment of Claims that Cholesterol-Reducing Treatments are Safe and Effective at Reducing Cardiovascular Events and Mortality"*

October, 2013

Dept. of Psychology, University of South Florida  
*"Methodological Mischief in Diet and Cholesterol Research"*

May, 2015

VA Hospital Endocrinology Lecture Series; Tampa, Florida

*"How Deceptive Statistics Created the Appearance that Statins are Safe and Effective at Improving Cardiovascular Disease Outcomes"*

July, 2015

Riga Diabetes & Obesity World Congress, Riga, Latvia

Lecture 1: *"Deceptive Statistics have Created the False Appearance that Statins are Safe and Effective in the Treatment of Cardiovascular Disease"*

Lecture 2: *"A Critical Appraisal of Current Dietary Guidelines: How Bad Science, Politics and Profits to the Diabetes and Obesity Epidemics"*.

November, 2015

Institute for Human & Machine Cognition, Ocala, Florida

*"Demonization and Deception in Cholesterol Research: Separating Fact From Profitable Fiction"*

January, 2016

University of South Florida, Tampa

1st Annual Conference on Nutritional Ketosis and Metabolic Therapeutics

*"Myths and Misinformation on Dietary Fat, Obesity and Heart Disease – the Sordid History of the War on Saturated Fat"*

February, 2016

International Cardiology & Cardiovascular Medicine Summit-2016

Dubai, United Arab Emirates

**Keynote Lecture:** A Rigorous Assessment Of Claims That Cholesterol-Reducing Treatments Are Safe And Effective At Reducing Cardiovascular Outcomes And Mortality

**Lecture 2:** Critical Appraisal Of Current Dietary Guidelines: How Bad Science, Politics and Profits Contributed To The Obesity and Heart Disease Epidemics

September, 2016

Fifth Global Symposium on Ketogenic Therapies, Banff, Canada

*"Challenging Conventional "Wisdom" That a High Fat Diet is Hazardous to Health"*

September, 2016

12th Congress of the International Society for the Study of Fatty Acids and Lipids; Stellenbosch University, Matieland, Stellenbosch, South Africa

*"Sense and nonsense in the war on saturated fat"*

February, 2017

University of South Florida, Tampa

2nd Annual Conference on Nutritional Ketosis and Metabolic Therapeutics

*"A Rigorous Assessment of the Myths that Cholesterol Causes Cardiovascular Disease"*

April, 2017

Nutricia Ketoconference 2017, London, England;

**Royal College of Physicians**

*"An Assessment of Myths on Cardiovascular Risks of a High Fat Diet"*

May, 2017

Institute for Human & Machine Cognition, Pensacola, Florida

*"Demonization and Deception in Cholesterol Research"*

June, 2017

NYU Alumni Club Presents: An Evening with David Diamond, PhD

*"Demonization and Deception in the War on Saturated Fat and Cholesterol."*

[http://www.alumni.nyu.edu/s/1068/alumni/interior\\_3col.aspx?sid=1068&gid=1&pgid=15420&cid=25811&ecid=25811&crd=0&calpgid=296&calcid=6366](http://www.alumni.nyu.edu/s/1068/alumni/interior_3col.aspx?sid=1068&gid=1&pgid=15420&cid=25811&ecid=25811&crd=0&calpgid=296&calcid=6366)

July, 2017

VA Brain Heart Consortium Meeting, Columbia, South Carolina

*"Biomarkers, Animal Models, Treatments, and Controversy in PTSD and Heart Disease Research"*

January, 2018

Low Carb West Palm 2018

*"Demonization and Deception in Cholesterol Research"*

March, 2018

Low Carb Breckenridge 2018

*"An Assessment of Cardiovascular Risks of a Low Carbohydrate, High Fat Diet"*

June, 2018

VA Hospital Endocrinology Lecture Series; Tampa, Florida

*"Evidence-Based Dietary Guidance for Individuals with Type 2 Diabetes"*

October, 2018

Low Carb Houston 2018

*"A rigorous assessment of the myth that cholesterol causes heart disease"*

January, 2019

"Metabolic Health Summit", Long Beach, California

*"Does an Elevation of LDL-Cholesterol with a Low Carbohydrate Diet Increase Risk for Cardiovascular Disease?"*

March, 2019

Fifth International Conference on Cardiac Sciences, Al Ahsa, Saudi Arabia

*"How Bad Science, Big Business and Politics Have Guided Dietary Guidelines"*

*"Historical Perspective on How Serum Cholesterol has been Demonized"*

*"Myths and Deception in Cholesterol Guidelines"*

May, 2019

Metabolic Health: A Solution to the Health Care Crisis, Seattle, Washington

*"An Assessment of Cardiovascular Risks of a Low Carbohydrate, High Fat Diet"*

May, 2019

Central Maine Heart and Vascular Institute, Lewiston Maine

*"A Rigorous Assessment of the Myth That Cholesterol Causes Heart Disease and that Cholesterol Reduction Improves Cardiovascular Outcomes"*

August, 2019

CrossFit Health Conference, Madison, Wisconsin

*"Demonization and Deception in Cholesterol Research: Separating Fact From Profitable Fiction"*

August, 2019

Second World Coconut Congress, Manila, Philippines

*"A Rigorous Assessment of the Myth That Consumption of Saturated Fat Causes Obesity and Heart Disease"*

October, 2019

Low Carb Houston, Houston, Texas

*“Does an Increase in LDL-C with Low Carbohydrate Diet Increase One’s Risk for Coronary Heart Disease?”*

November, 2019

Wise Traditions Weston Price Foundation

Keynote Lecture: *“Dietary Sense and Nonsense in the War on Saturated Fat and Cholesterol”*

Meeting talk: *“A Rigorous Assessment of the Hypothesis that Cholesterol Causes Heart Disease”*

January, 2020

CrossFit Health Conference, Santa Cruz, California

*“A Rebuttal to the Game Changers”*

August, 2020

CrossFit Health Webinar

*“Mythbusting the Diet-Heart Hypothesis”*

August, 2020

Lecture to the USF-MPM FM Nutrition Faculty

*“A Rigorous Assessment of the Diet-Heart Hypothesis”*

September, 2020

Proper Human Diet Virtual Summit

*“Should you be concerned about high LDL-C on a low carb diet?”*

January, 2021

Palm International Nutra-Cosmeceutical Conference

*“A Rigorous Assessment of the Myth That Consumption of Saturated Fat Causes Heart Disease”*

January, 2021

Boca 2021 Metabolic Health Conference

*“No basis to be concerned with high LDL-C on a low carb diet”*

## Diet and Heart Disease-Related Publications, Book Chapters and Letters to the Editor

### Publications

- Sahebzamani, F.M., Munro, C.L., Marroquin<sup>2</sup>, O.C., **Diamond, D.M.**, Keller, E. and Kip, K. (2014) Examination of the FDA warning for statins and cognitive dysfunction. *Journal of Pharmacovigilance*. 2:1000141.
- Diamond, D.M.** and Ravnskov, U. (2015) How Statistical Deception Created the Appearance that Statins are Safe and Effective at Improving Cardiovascular Disease Outcomes. *Expert Review of Clinical Pharmacology*. 8(2), 201–210 (doi:10.1586/17512433.2015.1012494).
- Ravnskov, U., **Diamond, D.M.**, Hama, R., Hamazaki, T., Hammarskjöld, B., Hynes, N., Kendrick, M., Langsjoen, P.H., Malhotra, A., Mascitelli, L., McCully, K.S., Ogushi, Y., Okuyama, H., Rosch, P.J., Schersten, T., Sultan, S., Sundberg, R. (2016) Lack of an association or an inverse association between low-density-lipoprotein cholesterol and mortality in the elderly. A systematic review. *BMJ Open*. 6;6, e010401; doi: 10.1136/bmjopen-2015-010401
- Ravnskov, U., de Lorgeril, M., **Diamond, D. M.**, Hama, R., et al. (2018) LDL-C does not cause cardiovascular disease: a comprehensive review of the current literature. *Expert Review of Clinical Pharmacology*, 11:959-970.
- Ravnskov, U., de Lorgeril, M., Kendrick M. and **Diamond, D.M.** (2018) Inborn coagulation factors are more important cardiovascular risk factors than high LDL-cholesterol in familial hypercholesterolemia. *Medical Hypotheses*. 121:60-3.
- Diamond, D.M.** de Lorgeril, M., Kendrick M., Ravnskov, U., and Rosch, P.J. (2019) Formal comment on “Systematic review of the predictors of statin adherence for the primary prevention of cardiovascular disease”. *PLoS ONE* 14(1): e0205138. <https://doi.org/10.1371/journal.pone.0205138>
- Diamond, D.M.**, Alabdulgader, A.A., de Lorgeril, M., Harcombe, Z., Kendrick M., Malhotra, A., O'Neill, B.O., Ravnskov, U., Sultan, S. and Volek, J.S. (2020) Dietary Recommendations for Familial Hypercholesterolaemia: an Evidence-Free Zone. *BMJ Evidence-Based Medicine*, DOI: 10.1136/bmjebm-2020-111412
- Diamond, D.M.**, O'Neill, B.O. and Volek, J.S. (2020) Low carbohydrate diet: Are concerns with saturated fat, lipids and cardiovascular disease risk justified? *Current Opinion in Endocrinology and Diabetes* (in press).
- Ravnskov, U., de Lorgeril, M., **Diamond, D. M.**, Hama, R., et al. (2020) The New European Guidelines for prevention of cardiovascular disease are misleading. *Expert Review of Clinical Pharmacology* (in press).
- Ravnskov, U., de Lorgeril, M., **Diamond, D. M.**, et. al. (2020) The LDL paradox: Higher LDL-Cholesterol is associated with greater longevity. *Annals of Epidemiology & Public Health* (in press).

## Book Chapters and Letters to the Editor

- Ravnskov, U., **Diamond, D.M.**, Karatay, M.C.E., Miller, D.W. and Okuyama, H. (2012) Letter to the Editor: No scientific support for linking dietary saturated fat to CHD. *British Journal of Nutrition*.
- Diamond, D.M.** and Ravnskov, U. (2016) Historical Perspective on the Use of Deceptive Methods in the War on Cholesterol. In: *Fat and cholesterol don't cause heart attacks and statins are not the solution*. ed., Rosch, P.J., Columbus Publishing, Ltd.
- Diamond, D.M.** and Ravnskov, U. (2017) Additional commentary on deception in statin research. *Expert Review of Clinical Pharmacology*. 2017 Dec;10(12):1411-1412. doi: 10.1586/17512433.2015.1102009
- Diamond, D.M.**, Kendrick, M. and Mascitelli, L. Misleading communication of benefits of long-term statin treatment.(2017) *BMJ*, 358:j4171.  
<http://www.bmj.com/content/358/bmj.j4171/rr>
- Diamond, D.M.**, Kendrick, M. and Mascitelli, L. Exaggerated report of benefits in a flawed long term statin treatment study (2017) *BMJ* 359: j4915.  
<https://www.ncbi.nlm.nih.gov/pubmed/29089296>
- Ravnskov, U., de Lorgeril, M., **Diamond, D.M.**, Hama,R., Hamazaki, T. et al., (2018) Response Letter to 'Does High LDL-cholesterol Cause Cardiovascular Disease?'. *Expert Review of Clinical Pharmacology*. 2018.  
<https://www.ncbi.nlm.nih.gov/pubmed/30563359>
- Diamond, D.M.** (2019) An Assessment of Biased and Deceptive Research in Diet Recommendations, Cholesterol Fears and Statin Therapy for Heart Disease Prevention. In: *Lipid Lunacy, Dietary Delusions – and What Really Causes Coronary Heart Disease*, eds., Rosch, P.J., Alabdulgader, A. (2020)
- Diamond, D.M.**, Ravnskov, U. and de Lorgeril, M. (2019) Do not treat children with statins. *Arquivos Brasileiros De Cardiologia* 112(3):324  
<http://dx.doi.org/10.5935/abc.20190034>
- Ravnskov, U., **Diamond, D.M.**, Sultan, D., (2020) Dyslipidemia is an unlikely cause of atherosclerosis. *BMJ Open*  
<https://bmjopen.bmj.com/content/10/1/e031799.responses#dyslipidemia-is-an-unlikely-cause-of-atherosclerosis>
- Diamond, D.M.**, Alabdulgader, A.A., de Lorgeril, M., Harcombe, Z., Kendrick M., Malhotra, A., O'Neill, B.O., Ravnskov, U., Sultan, S. and Volek, J.S. (2020) Low carbohydrate diet SHOULD be recommended for patients diagnosed with familial hypercholesterolaemia and metabolic syndrome. *BMJ Evidence-Based Medicine*.  
<https://ebm.bmj.com/content/early/2020/09/30/bmjebm-2020-111563.responses#low-carbohydrate-diet-should-be-recommended-for-patients-diagnosed-with-familial-hypercholesterolaemia-and-metabolic-syndrome>
- Diamond, D.M.** (2021) The Selling of statins as wonder drugs. In: TD Noakes, Bullen J, Kajee H, Wellington N, Murphy TE. *The Science of Low Carbohydrate and Ketogenic Nutrition in Human Health*. Elsevier. Cambridge, Massachusetts

## **Media Activity Related to Diet and Heart Disease**

May 20, 2011

### **How Bad Science and Big Business Created the Obesity Epidemic**

<http://www.youtube.com/watch?v=3vr-c8GeT34>

May 23, 2011

### **College Professor Decries U.S. Dietary Mindset**

<http://hartkeisonline.com/weight-loss/college-professor-decries-u-s-dietary-mindset/>

May 29, 2011

### **Coconut Oil and ketones: Cholesterol and Saturated Fats - the Myth**

<http://coconutketones.blogspot.com/2011/05/cholesterol-and-saturated-fats-myth.html>

June 6, 2011

### **USF professor discusses cholesterol, saturated fat and obesity myths**

<http://www.cas.usf.edu/news/s/176/#USF%20professor%20discusses%20cholesterol.%20saturated%20fat%20and%20obesity%20myths>

November, 2012

### **Saudi Arabian Gazette**

### **Conference skirmishes with Cholesterol, Statins and Statistics**

<http://www.saudigazette.com.sa/index.cfm?method=home.regcon&contentid=20121121143536>



## Publications

1. Rose, G., **Diamond, D.** and Lynch, G. (1983) Dentate granule cells in the rat hippocampal formation have the behavioral characteristics of theta neurons. *Brain Research*, 266:29-37.
2. Weinberger, N.M., Hopkins, W. and **Diamond, D.M.** (1984) Physiological plasticity of single neurons in auditory cortex of the cat during acquisition of the pupillary dilation conditioned response: I. Primary field (AI). *Behavioral Neuroscience*, 98:171-188.
3. **Diamond, D.M.** and Weinberger, N.M. (1984) Physiological plasticity of single neurons in auditory cortex of the cat during acquisition of the pupillary dilation conditioned response: II. Secondary field (AII). *Behavioral Neuroscience*, 98:189-210.
4. **Diamond, D.M.** and Weinberger, N.M. (1986) Classical conditioning rapidly induces specific changes in frequency receptive fields of single neurons in secondary and ventral ectosylvian auditory cortical fields. *Brain Research*, 372:357-360.
5. Weinberger, N.M. and **Diamond, D.M.** (1987) Physiological plasticity of single neurons in auditory cortex: Rapid induction by learning. *Progress in Neurobiology*, 27:1-55.
6. **Diamond, D.M.**, Dunwiddie, T.V. and Rose, G.M. (1988) Characteristics of hippocampal primed burst potentiation *in vitro* and in the awake rat. *Journal of Neuroscience*, 8:4079-4088.
7. McKenna, T.M., Weinberger, N.M. and **Diamond, D.M.** (1989) Responses of single auditory cortical neurons to tone sequences. *Brain Research*, 481:142-153.
8. **Diamond, D.M.** and Weinberger, N.M. (1989) The role of context in the expression of learning-induced plasticity of single neurons in auditory cortex. *Behavioral Neuroscience*, 103:471-494.
9. **Diamond, D.M.**, Bennett, M.C. and Rose, G.M. (1989) Adrenalectomy reduces the threshold for hippocampal primed burst potentiation in the anesthetized rat. *Brain Research*, 492:356-360.
10. Weinberger, N.M., Ashe, J., Metherate, R., McKenna, T.M., **Diamond, D.M.** and Bakin, J. (1990) Retuning auditory cortex by learning: A preliminary model. *Concepts in Neuroscience*, 1:91-132.
11. Engstrom, D.A., Bennett, M.C., Stevens, K.E., Wilson, R.L., **Diamond, D.M.**, Fleshner, M. and Rose, G.M. (1990) Differential sensitivity of hippocampal primed burst potentiation to anesthetics, *Brain Research*, 521:148-152.
12. **Diamond, D.M.**, Bennett, M.C., Stevens, K.E., Wilson, R.L. and Rose, G.M. (1990) Exposure to a novel environment interferes with the induction of hippocampal primed burst potentiation in behaving rats, *Psychobiology*, 18:273-281.
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14. Bennett, M.C., **Diamond, D.M.**, Stryker, S.L., Parks, J.K. and Parker, Jr., W.P. (1992) Cytochrome oxidase inhibition: A novel animal model of Alzheimer's disease, *The Journal of Geriatric Psychiatry and Neurology*, 5:93-101.
15. **Diamond, D.M.**, Bennett, M.C., Fleshner, M. and Rose, G.M. (1992) Inverted-U relationship between the level of peripheral corticosterone and the magnitude of hippocampal primed burst potentiation, *Hippocampus*, 2:421-430.
16. **Diamond, D.M.**, Fleshner, M. and Rose, G.M. (1994) Psychological stress repeatedly blocks hippocampal primed burst potentiation in the behaving rat, *Behavioural Brain Research*, 62:1-9.
17. **Diamond, D.M.** and Rose, G.M. (1994) Does associative LTP underlie classical conditioning?, *Psychobiology*, 22:263-269.
18. Bodnoff, S.R., Humphreys, A.G., Lehman, J.C., **Diamond, D.M.**, Rose G.M. and Meaney, M.J. (1995) Enduring effects of chronic corticosterone treatment on spatial learning, synaptic plasticity and hippocampal neuropathology in young and mid-aged rats, *Journal of Neuroscience*, 15:61-69.
19. **Diamond, D.M.** and Branch, B. (1995) Effects of dehydroepiandrosterone sulfate (DHEAS) and stress on hippocampal electrophysiological plasticity, *Annals of the New York Academy of Sciences: Dehydroepiandrosterone (DHEA) and Aging*, 774:304-307.
20. **Diamond, D.M.**, Branch, B.J. and Fleshner, M. (1996) The neurosteroid dehydroepiandrosterone sulfate (DHEAS) enhances hippocampal primed burst (PB), but not long-term, potentiation, *Neuroscience Letters*, 202:1-5.
21. **Diamond, D.M.**, Ingersoll, N., Fleshner, M. and Rose, G.M. (1996) Psychological stress impairs spatial working memory: Relevance to electrophysiological studies of hippocampal function, *Behavioral Neuroscience*, 110: 661-672.
22. Granholm, A.,E., Curtis, M., **Diamond, D.M.**, Branch, B.J., Heman, K.L. and Rose, G.M. (1996) Development of an intact blood-brain-barrier in brain tissue transplants is dependent on the site of transplantation, *Cell Transplantation*, 5:305-313.
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26. **Diamond, D.M.** and Park, (2000) Predator exposure produces retrograde amnesia and blocks synaptic plasticity: Progress toward understanding how the hippocampus is affected by stress. *Annals of the New York Academy of Sciences*, pp. 453-455.
27. Newman, M.B., Nazian, S., Sanberg, P.R., **Diamond, D.M.** and Shytle, R.D. (2000) Corticosterone - attenuating and anxiolytic properties of mecamylamine in the rat. *Progress in Neuro-Psychopharmacology and Biological Psychiatry*, 25: 609-620.

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  47. **Diamond, D.M.** (2005) Cognitive, endocrine and mechanistic perspectives on non-linear relationships between arousal and brain function. *Nonlinearity in Biology, Toxicology and Medicine*, 3:1-7.
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