

Curriculum Vitae

Nancy Schultz-Darken
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Education / Training

1972	BA Biology	Elmhurst College, Elmhurst, IL
1980	PhD Animal Behavior	The Johns Hopkins University, Baltimore, MD
1981 – 1986	Post Doc Neuroendocrinology	WPRC, University of Wisconsin, Madison, WI

Awards

1972 Harvey DeBruine Biology Award
1980 Phi Beta Kappa

Professional Experience

2005 – present	Unit Head, Centralized Protocol Implementation Unit, National Primate Research Center at UW-Madison
2010 – present	vice chair, All Campus ACUC, UW-Madison
2008 – present	Chair, Graduate School ACUC, UW-Madison
2002 – 2005	Research Colony Manager, National Primate Research Center at UW-Madison
1999 – 2002	Sr. Research Specialist, marmoset colony manager, WPRC
1991 – 1999	Research Specialist, Physiological Ethology, WPRC
1988 – 1991	Research Specialist, Dept. Surg. Sciences, UW School of Vet Medicine
1986 – 1987	Asst. Researcher, Comm. Sciences, Waisman Research Center
1981 – 1986	Research Assoc. WPRC, University of Wisconsin
1980 – 1981	Research Assoc. JFK Institute, Baltimore, MD

Professional Memberships

MaRGA Marmoset Research Group of the Americas - founding member
EMRG European Marmoset Research Group
IPS International Primate Society

Recent Continuing Education

2005 Invited participant at University of Texas Health Science Center/Barshop Institute of Longevity and Aging – Research Marmoset Maintenance Workshop
2006 Excellence in Management & Supervision Certificate Program at UW-Madison
2007 CE credits (10 h) - Business Management – Las Vegas, NV
2008 Level 4 Leadership Seminar, UW-Madison
2009 Journey of Facilitation and Collaboration Workshop, Madison, WI
2009 Community: The Structure of Belonging, Study Group, UW-Madison (also a co-facilitator)

Current Research Support

P51 RR000167 Cadwalleder (PI) 7/23/08 – 4/30/13
NCRR

Wisconsin National Primate Research Center Base Grant – CPI Unit

The Centralized Protocol Implementation Unit (CPI) serves as the gateway for utilization of the WNPRC resources and service units that are available to core scientists, University of Wisconsin researchers, and external researchers from other institutions. CPI coordinates the research activities of the animal portion of WNPRC approved research programs by integrating research needs with resources and services available and by providing a competent team of technical staff supported by the unit heads and WNPRC staff scientists.

Role: Co-PI

M6286252101 Haase (PI) 9/1/06 – 8/31/11
NIH/MIP

Topical Microbicide Against SIV and Chlamydia

This project is directed to developing a safe and effective microbicide agent to prevent intra-vaginal transmission of HIV-1, even in the setting of pre-existing inflammation. This study uses the Maccaca mulatta model and SIV infection.

Role: Research Manager

Pending Research Support

NIH/NICHD Ziegler (PI) submitted 6/5/10

Neural Pathways of Social Bonding in Male Marmosets

The goal of this study is to use functional brain imaging to determine the neural pathways of social bonding in male marmosets to their mate and to their infants. Looking at the shared and separate affiliative neural areas of these two stimuli and see where there are similarities or differences in those neural areas between one's own mate and infant. This is significant in analyzing male contributions to the family in a nonhuman primate with a similar family structure to humans. We can control many variables in the nonhuman primate that cannot be controlled for in humans, thereby finding clearer distinctions in neural pathways between only these two stimuli.

Role: Co-Investigator

NSF Brosnan (PI) plan to submit January 2011

Social Exchange and Concept of Value in Same-sex Pairs of Rhesus Macaques

In order to continue the paradigm of insight to primates' sense of fairness, its role in the motivation to work or cooperate, and the evolutionary link to analogous behaviors in humans, we would like to extend this to the rhesus monkey and are particularly interested in same-sex subject pairs in this evaluation to compare and add to existing data previously done using capuchin monkeys and chimpanzees. For this project, rhesus monkeys will be given a task that, if completed, will reward them with food. The rewards given will sometimes violate the animal's expectations, such as giving them a different reward than the one they were previously shown; or, rewards will be unequally distributed between members of a subject pair, with one member receiving a less-preferred reward than their partner. Animals' responses will be measured by their willingness to accept the rewards, their willingness to continue to exchange with the experimenter, the latency to complete interactions, and other behavioral measures.

Role: Co-PI

Other

Ad hoc reviewer: Amer. J. Primatology, J. Med. Primatology, and Int. J. Primatology, Springer-Verlag books

Recent Publications

Ferris C.F., Snowdon C.T., King J.A., Duong T.Q., Ziegler T.E., Urgurbil K., Ludwig R., Schultz-Darken N.J., Wu Z., Olson D.P., Sullivan J. Tannenbaum P.L., Vaughan J.T. Functional imaging of brain activity in conscious monkeys responding to sexually arousing cues. Neuroreport 12: 2231-2236. 2001

Dhurandhar NV, Whighan LD, Abbott DH, Schultz-Darken NJ, Israel BA, Bradley SM, Kemnitz JW, Allison DB, Atkinson RL Human adenovirus Ad-36 promotes weight gain in male rhesus and marmoset monkeys. J. Nutrition 132:3155-3160. 2002

Abbott DH, Barnett DK, Colman RJ Yamamoto ME, Schultz-Darken NJ Aspects of common marmoset basic biology and life history important for biomedical research. Comp. Med. 53:339-350. 2003

Schultz-Darken NJ Sample collection and restraint techniques used for common marmosets (*Callithrix jacchus*). Comp. Med. 53:360-363. 2003

- Tardif SD, Smucny DA, Abbott DH, Mansfield K, Schultz-Darken N, Yamamoto ME. Reproduction in captive common marmosets (*Callithrix jacchus*). Comp. Med. 53:364-368. 2003
- Saltzman W, Prudom SL, Schultz-Darken NJ, Wittwer DJ, Abbott DH. Social suppression of cortisol in female marmoset monkeys: Role of circulating ACTH levels and glucocorticoid negative feedback. Psychoneuroendocrinology 29:141-161. 2004
- Schultz-Darken NJ, Pape RM, Tannenbaum PT, Saltzman W, Abbott DH. Novel restraint system for neuroendocrine studies of socially living common marmoset monkeys. Laboratory Animals 38:393-405. 2004
- Ferris CF, Snowdon CT, King JA, Sullivan Jr., JM, Ziegler TE, Olson DP, Schultz-Darken NJ, Tannenbaum PL, Ludwig T, Wu Z, Einspanier A, Vaughan JT and Duong TQ. Imaging neural pathways associated with stimuli for sexual arousal in non-human primates. J Magnetic Resonance Imaging 19:168-175. 2004
- Gluckman TL, Walz SE, Schultz-Darken NJ, Bolton ID. Cytologic assessment of the vaginal epithelium in the common marmoset (*Callithrix jacchus*): A preliminary new approach to reproductive screening. Contemporary Topics 43:28-31. 2004
- Smucny DA, Abbott DH, Mansfield KG, Schultz-Darken NJ, Yamamoto ME, Alencar AI, Tardif SD. Reproductive output, maternal age, and survivorship in captive common marmoset females (*Callithrix jacchus*). Amer. J. Primatol. 64:107-121. 2004
- Ziegler TE, Schultz-Darken NJ, Scott JS, Snowdon CT, Ferris CF. Neuroendocrine response to female ovulatory odors depends upon social condition in male common marmosets, *Callithrix jacchus*. Horm Behav 47:56-64. 2005
- Ziegler TE, Prudom SL, Schultz-Darken NJ, Kurian AV, Snowdon CT. Pregnancy weight gain: marmoset and tamarin dads show it too. Roy Soc Biol Let 2005 online. doi:10.1098/rsbl.2005.0426
- Tardif S, Bales K, Williams L, Ludlage Moeller E, Abbott D, Schultz-Darken N, Mendoza S, Mason W, Bourgeois S, Ruiz J. Preparing New World monkeys for laboratory research. ILAR Journal 2006. 47:307-315.
- Snowdon CT, Ziegler TE, Schultz-Darken NJ, Ferris CF. Social odours, sexual arousal and pairbonding in primates. Phil Trans Royal Soc London, Series B: Biol Sci 2006. 361:2079-2089.
- Tannenbaum PL, Schultz-Darken NJ, Saltzman W, Terasawa E, Woller MJ, Abbott DH. Gonadotrophin-releasing hormone (GnRH) release in Marmosets I: In vivo measurement in ovary-intact and ovariectomised females. J Neuroendocrinol 2006. 19:342-353
- Tannenbaum PL, Schultz-Darken NJ, Woller MJ, Abbott DH. Gonadotrophin-releasing hormone (GnRH) release in Marmosets II: Pulsatile release of GnRH and pituitary gonadotrophin in adult females. J Neuroendocrinol 2006. 19:354-363.
- Prudom SL, Broz CA, Schultz-Darken N, Ferris CT, Snowdon C, Ziegler TE. Exposure to infant scent lowered serum testosterone in father common marmosets. Biol Lett. 2008. 4(6):603-5.
- Schlievert PM, Strandberg KL, Brosnahan AJ, Peterson ML, Pambuccian SE, Nephew KR, Brunner KG, Schultz-Darken NJ, Haase AT. Glycerol monolaurate does not alter rhesus macaque (*Macaca mulatta*) vaginal lactobacilli and is safe for chronic use. Antimicrob Agents Chemother. 2008 Dec;52(12):4448-54.
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Li Q, Estes JD, Schlievert PM, Duan L, Brosnahan AJ, Southern PJ, Reilly CS, Peterson ML, Schultz-Darken N, Brunner KG, Nephew KR, Pambuccian S, Lifson JD, Carlis JV, Haase AT. Glycerol monolaurate prevents mucosal SIV transmission. Nature. 2009. 458:1034-1038.

Kemnitz JW, Schultz-Darken N. An IACUC perspective on animal models of sleep-disordered breathing. ILAR Journal 2009. 50:312-13.

Woller MJ, Tannenbaum PL, Schultz-Darken NJ, Eshelman BD, Abbott DH. Pulsatile gonadotropin releasing hormone release from hypothalamic explants of male marmoset monkeys compared with male rats. Amer J Physiol Regulatory, Integrative, and Comparative Physiology. 2010. 298: R70-80.

Snowdon CT, Tannenbaum PL, Schultz-Darken NJ, Ziegler TE, Ferris CF. Conditioned sexual arousal in a nonhuman primate. Horm Behav. 2010 doi:10.1016/j.yh.beh.2010.10.009
