CURRICULUM VITAE HEIKO T. JANSEN

Address:

Department of Integrative Physiology and Neuroscience 205 Veterinary and Biomedical Research Building P.O. Box 647620 College of Veterinary Medicine Washington State University Pullman, WA 99164-7620

OFFICE: (509) 335-7056 LAB: (509) 335-0657 FAX: (509) 335-4650 EMAIL: heiko@wsu.edu

Lab website: http://www.jansenlab.net

Citizenship: U.S.A

Research Interest: Comparative Physiology and Neuroscience

Education:

1982	B.A.	Franklin Pierce College; Rindge, NH (Biology, cum laude)
1987	M.S.	University of Illinois at Urbana/Champaign (Veterinary Medical Sciences – Pharmacology/Toxicology); Mentor: John A. Dellinger, Ph.D.
1993	Ph.D.	University of Illinois at Urbana/Champaign (Veterinary Medical Sciences – Physiology); Mentor: Gary L. Jackson, Ph.D.

Publication Metrics: (as of 3/8/2021)

	Google scholar	Web of S	Science (1980-2021)
Citations	3064	1993	
h-index	33	26	
i10-index	62	24.91	citations/article

Professional Experience:

1982-1985	Research Specialist: Department of Anatomy & Cell Biology, College of Medicine, Emory University, Atlanta, GA
1985-1993	Graduate Research Assistant: Department of Veterinary Biosciences, College of Veterinary Medicine, University of Illinois at Urbana, Urbana, IL
1993-1995	Post-Doctoral Assistant: Department of Cell Biology, Neurobiology, and Anatomy, College of Medicine, University of Cincinnati, Cincinnati, OH: Mentor: Michael N. Lehman

1995-1997	NIH Post-Doctoral Fellow: College of Medicine, University of Cincinnati, Cincinnati, OH
1997-1999	Research Assistant Professor: Department of Cell Biology, Neurobiology and Anatomy, University of Cincinnati College of Medicine, Cincinnati, OH (Member, Neuroscience Graduate Program Faculty)
1998-1999	Adjunct Faculty: Department of Biology, Xavier University, Cincinnati, OH (Part-time)
2000-2007	Assistant Professor: Department of Veterinary & Comparative Anatomy, Pharmacology & Physiology (VCAPP), College of Veterinary Medicine, <u>and</u> Center for Reproductive Biology, Washington State University, Pullman, WA.
2007-2019	Associate Professor: Department of Integrative Physiology and Neuroscience, College of Veterinary Medicine, Washington State University, Pullman, WA.
2010-2016	Associate Director: Neuroscience Graduate Program, Department of Integrative Physiology and Neuroscience, College of Veterinary Medicine, Washington State University, Pullman, WA.
2018-present	Affiliate Member, Graduate Faculty: School of Biological Sciences, College of Arts and Sciences, Washington State University, Pullman, WA.
2019-present	Professor: Department of Integrative Physiology and Neuroscience, College of Veterinary Medicine, Washington State University, Pullman, WA.

Scientific and Professional Membership:

Society for Research on Biological Rhythms International Association for Bear Research and Management

Editorial boards:

Frontiers in Physiology Frontiers in Endocrinology

Publications

Link to public list of publications:

https://www.ncbi.nlm.nih.gov/myncbi/heiko.jansen.1/bibliography/public/

Books:

- 1. **Jansen HT** and Lampa S. *Neuroanatomy: A Laboratory Guide*. 2nd Edition, 2017. Top Hat Monocle Corp., Toronto, Ontario, Canada, ISBN **978-1-77330-056-6**
- 2. Jenny L, Geske N, **Jansen HT**, Werstein K. *Human Anatomy*., 2018. Top Hat Monocle Corp., Toronto, Ontario, Canada, ISBN **978-1-77330-097-9**.

Peer-Reviewed Articles (oldest first)

- 1. Jeffery EH, **Jansen HT**, Dellinger JA. Invivo Interactions of Aluminum with Hepatic Cytochrome-P-450 and Metallothionein. *Fund Appl Toxicol*. 1987;8(4):541-548.
- 2. Dellinger JA, **Jansen HT**, Zaber DJ, Birnbaum SG. Vagal Tone Monitoring a Potential Indicator of Anti-Cholinesterase Exposure in Macaca-Mulatta. *Toxicology*. 1988;49(2-3):227-235.
- 3. **Jansen HT**, Dellinger JA. Effects of Atropine on Respiratory Sinus Arrhythmia (RSA) in the Rhesus Macague. *Neurotoxicology and Teratology*. 1988;10(2):169-174.
- 4. Jackson GL, **Jansen HT**, Kuehl DE, Shanks RD. Time of the Sidereal Year Affects Responsiveness to the Phase-Resetting Effects of Photoperiod in the Ewe. *Journal of Reproduction and Fertility*. 1989;85(1):221-227.
- 5. **Jansen HT**, Dellinger JA. Comparing the Cardiac Vagolytic Effects of Atropine and Methylatropine in Rhesus Macaques. *Pharmacol Biochem Be*. 1989;32(1):175-179.
- 6. Jackson GL, **Jansen HT**. Persistence of a Circannual Rhythm of Plasma Prolactin Concentrations in Ewes Exposed to a Constant Equatorial Photoperiod. *Biology of Reproduction*. 1991;44(3):469-475.
- 7. **Jansen HT**, Khalid M, Jackson GL. N-Methyl-D, L-Aspartate Induces a Transient Increase in Lh-Secretion in the Seasonally Anestrous Ewe. *Domest Anim Endocrin*. 1991;8(1):55-62.
- 8. **Jansen HT**, Cooke PS, Porcelli J, Liu TC, Hansen LG. Estrogenic and Antiestrogenic Actions of Pcbs in the Female Rat Invitro and Invivo Studies. *Reproductive Toxicology*. 1993;7(3):237-248.
- 9. **Jansen HT**, Jackson GL. Circannual Rhythms in the Ewe Patterns of Ovarian Cycles and Prolactin Secretion under 2 Different Constant Photoperiods. *Biology of Reproduction*. 1993;49(3):627-634.
- Jansen HT, Jackson GL. Olfactory-Bulb Removal Does Not Prevent Gonadotropin or Prolactin Responses to Changing Photoperiod in the Ewe. *Neuroendocrinology*. 1993;57(3):448-456.
- 11. **Jansen HT**, Popiela CL, Jackson GL, Iwamoto GA. A Reevaluation of the Effects of Gonadal-Steroids on Neuronal-Activity in the Male-Rat. *Brain Research Bulletin*. 1993;31(1-2):217-223.
- 12. Hansen LG, Jansen HT. Environmental Estrogens. Science. 1994;266(5185):526.
- 13. **Jansen HT**. Single-Label and Double-Label Immunocytochemical Study of the Ovine Suprachiasmatic Nucleus (Scn) Gabaergic and Peptidergic Relationships (Vol 34, Pg 499, 1994). *Brain Research Bulletin*. 1994;35(4):393-393.

- 14. **Jansen HT**, Gong QZ, Norgren RB, Lehman MN. Single-Label and Double-Label Immunocytochemical Study of the Ovine Suprachiasmatic Nucleus (Scn) Gabaergic and Peptidergic Relationships. *Brain Research Bulletin*. 1994;34(5):499-506.
- 15. **Jansen HT**, Lubbers LS, Degroot LJ, Lehman MN. Colocalization of Alpha-Thyroid Hormone Receptors in Neuropeptide-Containing and Neurotransmitter-Containing Neurons of the Sheep and Hamster Brain. *Biology of Reproduction*. 1994;50:108-108.
- 16. Lehman MN, Berriman SJ, **Jansen HT**, Parfitt D, Dahl GE, Evans NP, Karsch FJ. Is Fos Expression in Gnrh and Other Neurons during the Estradiol-Induced Lh Surge of the Ewe Associated with Neurosecretory or Behavioral Events. *Biology of Reproduction*. 1994;50:185-185.
- 17. Durham DM, **Jansen HT**, Adrian BA, Goodman RL, Lehman MN. Dopaminergic A14/A15 Neurons Are Activated during Estradiol Negative Feedback in the Anestrous Ewe. *Biology of Reproduction*. 1995;52:156-156.
- 18. **Jansen HT**, Hileman SM, Kuehl DE, Lubbers LS, Jackson GL, Lehman MN. Distribution of GnRH Neurons in the Ewe That Project to the Median-Eminence. *Biology of Reproduction*. 1995;52:155-155.\
- 19. Keiper GL, **Jansen HT**, Lehman MN. Tracing Efferents from Anterior Hypothalamic Cell-Suspension Grafts the Use of Xenografts and a Donor-Specific Antibody. *Experimental Neurology*. 1995;135(2):166-166.
- 20. Scott CJ, **Jansen HT**, Kao CC, Kuehl DE, Jackson GL. Disruption of Reproductive Rhythms and Patterns of Melatonin and Prolactin Secretion Following Bilateral Lesions of the Suprachiasmatic Nuclei in the Ewe. *Journal of Neuroendocrinology*. 1995;7(6):429-443.
- 21. **Jansen HT**, Hileman SM, Lubbers LS, Jackson GL, Lehman MN. A subset of estrogen receptor-containing neurons project to the median eminence in the ewe. *Journal of Neuroendocrinology*. 1996;8(12):921-927.
- 22. **Jansen HT**, Urbanski HF, Lehman MN. Thyroxine (T4) acts centrally to attenuate short photoperiod responses in male Syrian hamsters. *Biology of Reproduction*. 1996;54:149-149.
- 23. Lehman MN, Durham DM, **Jansen HT**, Adrian B, Goodman RL. Dopaminergic A14/A15 neurons are activated during estradiol negative feedback in anestrous, but not breeding season, ewes. *Endocrinology*. 1996;137(10):4443-4450.
- 24. **Jansen HT**, Hileman SM, Lubbers LS, Kuehl DE, Jackson GL, Lehman MN. Identification and distribution of neuroendocrine gonadotropin-releasing hormone neurons in the ewe. *Biology of Reproduction*. 1997;56(3):655-662.
- 25. **Jansen HT**, Lubbers LS, Macchia E, DeGroot LJ, Lehman MN. Thyroid hormone receptor (alpha) distribution in hamster and sheep brain: Colocalization in gonadotropin-releasing hormone and other identified neurons. *Endocrinology*. 1997;138(11):5039-5047.
- 26. Lehman MN, Goodman RL, Karsch FJ, Jackson GL, Berriman SJ, **Jansen HT**. The GnRH system of seasonal breeders: Anatomy and plasticity. *Brain Research Bulletin*. 1997;44(4):445-457.
- 27. Tian MT, Broxmeyer HE, Fan Y, Lai ZN, Zhang SW, Aronica S, Cooper S, Bigsby RM, Steinmetz R, Engle SJ, Mestek A, Pollock JD, Lehman MN, Jansen HT, Ying MY, Stambrook PJ, Tischfield JA, Yu L. Altered hematopoiesis, behavior, and sexual function in mu opioid receptor-deficient mice. *Journal of Experimental Medicine*. 1997;185(8):1517-1522.
- 28. **Jansen HT**, Iwamoto GA, Jackson GL. Central connections of the ovine olfactory bulb formation identified using wheat germ agglutinin-conjugated horseradish peroxidase. *Brain Research Bulletin*. 1998;45(1):27-39.
- 29. Coolen LM, **Jansen HT**, Goodman RL, Wood RI, Lehman MN. A new method for simultaneous demonstration of anterograde and retrograde connections in the brain: coinjections of biotinylated dextran amine and the beta subunit of cholera toxin. *J Neurosci Meth.* 1999;91(1-2):1-8.

- 30. Hileman SM, Lubbers LS, **Jansen HT**, Lehman MN. Changes in hypothalamic estrogen receptor-containing cell numbers in response to feed restriction in the female lamb. *Neuroendocrinology*. 1999;69(6):430-437.
- 31. Silver R, Sookhoo AI, LeSauter J, Stevens P, **Jansen HT**, Lehman MN. Multiple regulatory elements result in regional specificity in circadian rhythms of neuropeptide expression in mouse SCN. *Neuroreport*. 1999;10(15):3165-3174.
- 32. Fong SL, Ying S, **Jansen HT**, Lehman MN, Kao WWY. Retinal degeneration and light-induced c-fos mRNA expression in the suprachiasmatic nucleus of cone photoreceptorablated transgenic mice. *Invest Ophth Vis Sci.* 2000;41(4):S202-S202.
- 33. Stefanovic I, Adrian B, **Jansen HT**, Lehman MN, Goodman RL. The ability of estradiol to induce fos expression in a subset of estrogen receptor-alpha-containing neurons in the preoptic area of the ewe depends on reproductive status. *Endocrinology*. 2000;141(1):190-196.
- 34. Ying SX, **Jansen HT**, Lehman MN, Fong SL, Kao WWY. Retinal degeneration in cone photoreceptor cell-ablated transgenic mice. *Mol Vis.* 2000;6(12):101-108.
- 35. **Jansen HT**, West C, Lehman MN, Padmanabhan V. Ovarian estrogen receptor-beta (ERß) regulation: I. Changes in ER beta messenger RNA expression prior to ovulation in the ewe. *Biology of Reproduction*. 2001;65(3):866-872.
- 36. Seta KA, **Jansen HT**, Kreitel KD, Lehman M, Behbehani MM. Cold water swim stress increases the expression of neurotensin mRNA in the lateral hypothalamus and medial preoptic regions of the rat brain. *Molecular Brain Research*. 2001;86(1-2):145-152.
- 37. Viguie C, **Jansen HT**, Glass JD, Watanabe M, Billings HJ, Coolen L, Lehman MN, Karsch FJ. Potential for polysialylated form of neural cell adhesion molecule-mediated neuroplasticity within the gonadotropin-releasing hormone neurosecretory system of the ewe. *Endocrinology*. 2001;142(3):1317-1324.
- 38. Romeo RD, Wagner CK, **Jansen HT**, Diedrich SL, Sisk CL. Estradiol induces hypothalamic progesterone receptors but does not activate mating behavior in male hamsters (Mesocricetus auratus) before puberty. *Behavioral Neuroscience*. 2002;116(2):198-205.
- 39. **Jansen HT**, Cutter C, Hardy S, Lehman MN, Goodman RL. Seasonal plasticity within the gonadotropin-releasing hormone (GnRH) system of the ewe: Changes in identified GnRH inputs and glial association. *Endocrinology*. 2003;144(8):3663-3676.
- 40. Sleipness EP, Sorg BA, **Jansen HT**. Time of day alters long-term sensitization to cocaine in rats. *Brain Research*. 2005;1065(1-2):132-137.
- 41. **Jansen HT**, Kirby JD, Cooke PS, Arambepola N, Iwamoto GA. Impact of neonatal hypothyroidism on reproduction in the male hamster, Mesocricetus auratus. *Physiology & Behavior*. 2007;90(5):771-781.
- 42. Sleipness EP, Sorg BA, **Jansen HT**. Contribution of the suprachiasmatic nucleus to day: night variation in cocaine-seeking behavior. *Physiology & Behavior*. 2007;91(5):523-530.
- 43. Sleipness EP, Sorg BA, **Jansen HT**. Diurnal differences in dopamine transporter and tyrosine hydroxylase levels in rat brain: Dependence on the suprachiasmatic nucleus. *Brain Research*. 2007;1129(1):34-42.
- 44. Sleipness EP, **Jansen HT**, Schenk JO, Sorg BA. Time-of-Day Differences in Dopamine Clearance in the Rat Medial Prefrontal Cortex and Nucleus Accumbens. *Synapse*. 2008;62(12):877-885.
- 45. Sergeeva A, **Jansen HT**. Neuroanatomical Plasticity in the Gonadotropin-Releasing Hormone System of the Ewe: Seasonal Variation in Glutamatergic and gamma-Aminobutyric Acidergic Afferents. *Journal of Comparative Neurology*. 2009;515(6):615-628.
- 46. Bass CE, **Jansen HT**, Roberts DCS. Free-Running Rhythms of Cocaine Self-Administration in Rats Held under Constant Lighting Conditions. *Chronobiol Int*. 2010;27(3):535-548.
- 47. Goodman RL, **Jansen HT**, Billings HJ, Coolen LM, Lehman MN. Neural Systems Mediating Seasonal Breeding in the Ewe. *Journal of Neuroendocrinology*. 2010;22(7):674-681.

- 48. Browning JR, Browning DA, Maxwell AO, Dong Y, **Jansen HT**, Panksepp J, Sorg BA. Positive affective vocalizations during cocaine and sucrose self-administration: A model for spontaneous drug desire in rats. *Neuropharmacology*. 2011;61(1-2):268-275.
- 49. Hileman SM, McManus CJ, Goodman RL, **Jansen HT**. Neurons of the Lateral Preoptic Area/Rostral Anterior Hypothalamic Area Are Required for Photoperiodic Inhibition of Estrous Cyclicity in Sheep. *Biology of Reproduction*. 2011;85(5):1057-1065.
- 50. **Jansen HT**, Hershey J, Mytinger A, Foster DL, Padmanabhan V. Developmental Programming: Reproductive Endocrinopathies in the Adult Female Sheep After Prenatal Testosterone Treatment Are Reflected in Altered Ontogeny of GnRH Afferents. *Endocrinology*. 2011;152(11):4288-4297.
- 51. Sorg BA, Stark G, Sergeeva A, **Jansen HT**. Photoperiodic Suppression of Drug Reinstatement. *Neuroscience*. 2011;176:284-295.
- 52. Bilimoria JL, Reis DJ, Nealey KA, **Jansen HT**, Smith DG, Walker BM. Chronic Alcohol Increases Central Amygdala Dynorphin and Induces Escalated Self-Administration That Is Rescued by Kappa-Opioid Receptor Blockade. *Alcoholism-Clinical and Experimental Research*. 2012;36:267a-267a.
- 53. **Jansen HT**, Sergeeva A, Stark G, Sorg BA. Circadian Discrimination of Reward: Evidence for Simultaneous Yet Separable Food-and Drug-Entrained Rhythms in the Rat. *Chronobiol Int.* 2012;29(4):454-468.
- 54. Li AJ, Wiater MF, Oostrom MT, Smith BR, Wang Q, Dinh TT, Roberts BL, **Jansen HT**, Ritter S. Leptin-sensitive neurons in the arcuate nuclei contribute to endogenous feeding rhythms. *Am J Physiol-Reg I*. 2012;302(11):R1313-R1326.
- 55. Ware JV, Nelson OL, Robbins CT, **Jansen HT**. Temporal organization of activity in the brown bear (Ursus arctos): roles of circadian rhythms, light, and food entrainment. *Am J Physiol-Reg I*. 2012;303(9):R890-R902.
- 56. Ware JV, Nelson OL, Robbins CT, **Jansen HT**. Split Parturition Observed in a Captive North American Brown Bear (Ursus arctos). *Zoo Biol*. 2012;31(2):255-259.
- 57. Fortin JK, Ware JV, **Jansen HT**, Schwartz CC, Robbins CT. Temporal niche switching by grizzly bears but not American black bears in Yellowstone National Park. *Journal of Mammalogy*. 2013;94(4):833-844.
- 58. Jackson LM, Mytinger A, Roberts EK, Lee TM, Foster DL, Padmanabhan V, **Jansen HT**. Developmental Programming: Postnatal Steroids Complete Prenatal Steroid Actions to Differentially Organize the GnRH Surge Mechanism and Reproductive Behavior in Female Sheep. *Endocrinology*. 2013;154(4):1612-1623.
- 59. Ware JV, Nelson OL, Robbins CT, Carter PA, Sarver BAJ, **Jansen HT**. Endocrine rhythms in the brown bear (Ursus arctos): Evidence supporting selection for decreased pineal gland size. Physiol. Rep. 2013; 1(3): e00048.
- 60. Wiater MF, Li AJ, Dinh TT, **Jansen HT**, Ritter S. Leptin-sensitive neurons in the arcuate nucleus integrate activity and temperature circadian rhythms and anticipatory responses to food restriction. *Am J Physiol-Reg I*. 2013;305(8):R949-R960.
- 61. Browning JR, **Jansen HT**, Sorg BA. Inactivation of the paraventricular thalamus abolishes the expression of cocaine conditioned place preference in rats. *Drug Alcohol Depen*. 2014;134:387-390.
- 62. Guo R, **Jansen HT**, Simasko SM. Chronic Alcohol Consumption Alters the Molecular Clock of the Hypothalamic-Pituitary-Adrenal Axis at Peripheral but Not Central Sites. *Alcoholism-Clinical and Experimental Research*. 2014;38:151a-151a.
- 63. Kissler JL, Sirohi S, Reis DJ, **Jansen HT**, Quock RM, Smith DG, Walker BM. The One-Two Punch of Alcoholism: Role of Central Amygdala Dynorphins/Kappa-Opioid Receptors. *Biological psychiatry*. 2014;75(10):774-782.
- 64. Ware JV, Rode KD, Pagano AM, Bromaghin J, Robbins CT, Erlenbach J, Jensen S, Cutting A, Nicassio-Hiskey N, Hash A, Owen M, **Jansen HT**. Validation of mercury tip-switch and

- accelerometer activity sensors for identifying resting and active behavior in bears. *Ursus*. 2015;26(2):86-96.
- 65. Gehring JL, Rigano KS, Hutzenbiler BDE, Nelson OL, Robbins CT, **Jansen HT**. A protocol for the isolation and cultivation of brown bear (Ursus arctos) adipocytes. *Cytotechnology*. 2016;68(5):2177-2191.
- 66. Guo R, Simasko SM, **Jansen HT**. Chronic Alcohol Consumption in Rats Leads to Desynchrony in Diurnal Rhythms and Molecular Clocks. *Alcoholism-Clinical and Experimental Research*. 2016;40(2):291-300.
- 67. **Jansen HT**, Leise T, Stenhouse G, Pigeon K, Kasworm W, Teisberg J, Radandt T, Dallmann R, Brown S, Robbins CT. The bear circadian clock doesn't 'sleep' during winter dormancy. *Front Zool.* 2016;13.
- 68. Joyce-Zuniga NM, Newberry RC, Robbins CT, Ware JV, **Jansen HT**, Nelson OL. Positive Reinforcement Training for Blood Collection in Grizzly Bears (Ursus arctos horribilis) Results in Undetectable Elevations in Serum Cortisol Levels: A Preliminary Investigation. *J Appl Anim Welf Sci.* 2016;19(2):210-215.
- 69. Cattet M, Stenhouse GB, Janz DM, Kapronczai L, Erlenbach JA, **Jansen HT**, Nelson OL, Robbins CT, Boulanger J. The quantification of reproductive hormones in the hair of captive adult brown bears and their application as indicators of sex and reproductive state. *Conservation Physiology*. 2017;5.
- 70. Rigano KS, Gehring JL, Hutzenbiler BDE, Chen AV, Nelson OL, Vella CA, Robbins CT, **Jansen HT**. Life in the fat lane: seasonal regulation of insulin sensitivity, food intake, and adipose biology in brown bears. *Journal of Comparative Physiology B-Biochemical Systems and Environmental Physiology*. 2017;187(4):649-676.
- 71. Rivet DR, Nelson OL, Vella CA, **Jansen HT**, Robbins CT. Systemic effects of a high saturated fat diet in grizzly bears (Ursus arctos horribilis). *Canadian Journal of Zoology*. 2017;95(11):797-807.
- 72. Ware JV, Rode KD, Bromaghin JF, Douglas DC, Wilson RR, Regehr EV, Amstrup SC, Durner GM, Pagano AM, Olson J, Robbins CT, **Jansen HT**. Habitat degradation affects the summer activity of polar bears. *Oecologia*. 2017;184(1):87-99.
- 73. **Jansen HT**, Trojahn S, Saxton MW, Quackenbush CR, Evans Hutzenbiler BD, Nelson OL, Cornejo OE, Robbins CT, Kelley JL. Hibernation induces widespread transcriptional remodeling in metabolic tissues of the grizzly bear. *Commun Biol.* 2019;2:336.
- 74. Wright HL, Chen AV, **Jansen HT**. Composition of Cerebrospinal Fluid in Clinically Normal Grizzly Bears (Ursus Arctos Horribilis). *J Zoo Wildlife Med*. 2019;50(3):739-741.
- 75. Vella, CA, Nelson OL, **Jansen HT**, Robbins CT, Jensen AE, Constantinescu S, Abbott MJ, Turcotte LP. Regulation of metabolism during hibernation in brown bears (*Ursus arctos*): involvement of cortisol, PGC-1α and AMPK in adipose tissue and skeletal muscle. Comp *Biochem Physiol, Part A.* 2020; 240:110591-.
- 76. Ware JV, Rode KA, Robbins CT, Leise T, **Jansen HT**. The clock continues ticking in polar bears: circadian rhythmicity of free ranging polar bears. *J Biol Rhythms*. 2020;35(2):180-194.
- 77. Cattet M, Stenhouse G, Janz DM, Kapronczai L, Erlenbach JA, **Jansen HT**, Nelson OL, Robbins CT. Cortisol levels in the blood and hair of non-anesthetized brown bears (Ursus arctos) following intravenous ACTH challenges. *Vet Med Sci.* 2021;00:1–7. https://doi.org/10.1002/vms3.523
- 78. **Jansen HT**, Hutzenbiler E, Hapner H, Carnahan A, Kelley J, Saxton M, Robbins CT. Can offsetting the minimal energetic cost of hibernation in grizzly bears (*Ursus arctos horribilis*) restore active status? *J. Exp. Biol.* 2021 224(12):1-12, jeb242560. https://doi:10.1242/jeb.242560.
- 79. Tseng E, Underwood J, Hutzenbiler BE, Trojahn S, Kingham B, Shevchenko O, Bernberg E, Robbins C, **Jansen H**, Kelley J. Long-read isoform sequencing reveals tissue-specific

- isoform expression between active and hibernating brown bears (*Ursus arctos*). For: G3: Genes, Genomes, Genetics (In Press)
- 80. Hapner H, Hutzenbiler BE, Robbins CT, **Jansen HT**. Changing lanes: Seasonal differences in cellular metabolism of adipocytes in grizzly bears (*Ursus arctos horribilis*). For: Journal of Comparative Physiology B. (In Press)

Manuscripts Under Review

- Richard J. Wang, Yadira Peña-Garcia, Madeleine Bibby, Muthuswamy Raveendran, R. Alan Harris, **Heiko T. Jansen**, Charles T. Robbins, Jeffrey Rogers, Joanna L. Kelley, Matthew W. Hahn. Hibernation shows no apparent effect on germline mutation rates in grizzly bears;
 - bioRxiv 2022.03.15.481369; doi: https://doi.org/10.1101/2022.03.15.481369
- Elizabeth Tseng, Jason G. Underwood, Brandon D. Evans
 Hutzenbiler, Shawn Trojahn, Brewster Kingham, Olga Shevchenko, Erin Bernberg, Michelle
 Vierra, Charles T. Robbins, Heiko T. Jansen, Joanna L. Kelley. Long-read isoform
 sequencing reveals tissue-specific isoform expression between active and hibernating
 brown bears (*Ursus arctos*).

bioRxiv 2021.07.13.452179; doi: https://doi.org/10.1101/2021.07.13.452179

Manuscripts in Preparation

- 1. Baldwin M, Marinelli N, **Jansen HT**, Krubitzer L. Architectonic characteristics of the superior colliculus and thalamus of grizzly bears. For: J. Comp. Neurol.
- 2. Guo R, **Jansen HT**, Simasko SM. Chronic alcohol consumption delays and fragments recovery sleep after acute sleep deprivation in rats.

GRANT FUNDING:

11/01/2017 —

Active-

present	energetic and physiological adaptions in brown bears, ROLE: Co-PI with CT Robbins, JL Kelley	φ 34,733
Pending-		
10/01/2021 –	NASA [TRISH]: Development of models to advance human Hibernation. ROLE: PI	1,000,000
09/01/2021 – 8/2 <i>0</i> 23	NIH [NIGMS R01]: Role of regulatory evolution in complex physiological traits. ROLE: Co-I [PI: J.L. Kelley]	1,024,747
04/01/2022 –	NIH [NIDDK R01]: Leveraging reversible obesity and insulin.	2,430,757

Int'l Assoc Bear Res & Momt [132565-001]: Dietary

\$ 94 739

Resistance to inform human disease. ROLE: MPI [H.T. Jansen and J.L. Kelley]

Completed (oldest first) -

1995 – 1997	NRSA/Postdoctoral Fellowship (HD07841): Thyroid hormones and seasonal reproduction; ROLE: PI [SPONSOR: M.N. Lehman]	
1997 – 2001	NIH [R01 HD1786]: Neuroendocrine control of seasonality in the ewe; ROLE: Co-I [PI: M.N. Lehman]	73,993
10/01/98 – 9/30/03	USDA [98-35203-6321]: Anatomical basis of seasonal plasticity in the GnRH system of the ewe; ROLE: PI	179,293
1999 – 2000	NIH [NS20643]: The role of neuropeptides in pain inhibition; ROLE: Co-I [PI: M. Behbehani]	475,554
2000 – 2001	<u>USDA [10S-3924-0977]</u> : Neural pathways in the control of reproduction; ROLE: Co-Investigator [PI: M. Lehman]	19,982
07/2000 – 06/2002	WSU/CVM Intramural: Neural pathways in the control of reproduction; ROLE: PI	19,982
05/2001 – 12/2002	<u>USDA</u> : Anatomical basis of seasonal plasticity within the GnRH system of the ewe; ROLE: PI	82,948
07/2001 – 06/2002	WSU/CVM Intramural: Seasonal neuroendocrine transitions: unmasking the switch; ROLE: PI	19,500
07/01/03 – 12/31/04	WA/WSU ADARP [13B 2550-0946]: Role of the circadian system in drug addiction relapse; PI; [*WSLB awarded \$6,246 additional funds from 12/30/04-12/31/05]	24,983
7/31/04 – 5/01/05	WA/WSU ADARP: Cocaine and the suprachiasmatic nucleus; PI/Mentor [for Jeffery Brown/WSU Undergraduate Student]	3,022
2005 – 2006	NIH/Shared Instrumentation Grant: Zeiss LSM510 Confocal Microscope; ROLE: Co-I [PI: E. Sheldon/WSU]	460,561
02/01/06 – 01/31/07	WSU Technology Gap Fund [OGRD: 10556]: A synthetic protein sterilant for use in pet population control; ROLE: PI	16,005
08/15/05 — 08/14/08	USDA [2005-35203-15848]: Seasonal plasticity in the GnRH system of the ewe; ROLE: PI	242,709

08/01/06 – 07/31/09	NIH [P01 HD044232]: Prenatal programming of postnatal GnRH feedback controls in the female; ROLE: Co-I [PI: V. Padmanabhan/University of Michigan]	205,991
6/30/10 – 07/01/11	WA/WSU ADARP: Application for equipment purchase; (VitalView® Circadian rhythm monitoring); ROLE: PI [Barbara A. Sorg, Co-PI]	33,778
09/01/07 – 08/31/12	NIH [R01DA023202-01]: Circadian modulation of drug seeking behavior, ROLE: PI	1,250,000
03/03/09 – 08/31/12	WA/WSU ADARP [13B 2550-1228]: Internal desynchrony as a property of addiction; ROLE: PI	20,005
10/1/11 – 09/30/13	WA/WSU ADARP: Dysregulation of sleep, activity, and temperature rhythms following alcohol is mediated by corticotrophin -releasing factor (CRF); ROLE: PI.	29,014
06/30/12 – 10/31/14	AMGEN, Inc.: Understanding the natural hibernation state in bears; ROLE: Co-PI with OL Nelson and CT Robbins.	182,975
04/01/12 – 03/31/15	NIH [R01]: Extracellular Matrix, Cocaine, and Memory; ROLE: Co-I, PI: B.A. Sorg, WSU (only received funding in year 1)	1,853,484
06/01/14- 01/31/16	NSF: Graduate Research Fellowship Program – awarded to Ms. Kimberly Rigano. ROLE: Mentor.	96,000
04/15/12 – 07/31/16	<u>USGS</u> : Response of polar bear activity levels to variation in seasonal sea ice conditions in the Chukchi and southern Beaufort seas; ROLE: Co-PI with K. Rode.	92,247
05/01/13 – 05/01/16	FOOTHILLS RESEARCH INSTITUTE (FR): Understanding how variations in stress and energy influence reproduction in female brown bears with applications for the recovery of brown bears in Alberta; ROLE: co-PI with CT Robbins	60,000
03/01/15 – 03/30/16	International Association for Bear Research and Management (IBA); Assessing the innate odor-driven behavior of brown bears (Ursus arctos); ROLE: PI	10,000
05/01/2015 – 06/30/17	AMGEN, Inc.: Extreme Metabolism in Bears; ROLE: PI	267,000
05/01/2017 – <i>08/31/17</i>	WSU, CVM; Contribution of circadian rhythms to glucose uptake by bear adipocytes; Shaver, K. (PI); ROLE: Mentor	3,500
09/19/17 – 09/18/19	International Association for Bear Research and Management (IBA); Assessing the innate odor-driven behavior of brown bears (Ursus arctos); ROLE: PI	52,2640

05/01/2018 – 08/31/18	WSU, CVM; A novel approach to reversing insulin resistance and its impact on circadian rhythms of glucose metabolism in bears; Shaver, K. (PI); ROLE: Mentor	3,500
07/01/2017 - 06/30/20	FRI, Medtronic, USGS [131812-001]: The Development and Calibration of Techniques to Measure Energy Expenditures and Activity in Grizzly Bears; ROLE: Co-PI with CT Robbins.	30,000
11/01/2017 – 10/31/21	Int'l Assoc. Bear Res. & Mgmt. [132565-001]: Dietary, energetic and physiological adaptions in brown bears, ROLE: Co-PI with CT Robbins, JL Kelley	\$156,793

Invited Speaker/Presentations:

- 1. Pharmacology/Toxicology Seminar Series: Reproductive Toxicity of Persistent Environmental Compounds. University of Illinois at Urbana; Urbana, IL. (March 1990)
- 2. Presentation: In Vitro Effects of Polychlorinated Biphenyls on Rat Anterior Pituitary Cells. Environmental Health Directorate; Ottawa, Ontario, CANADA. (April 1991)
- 3. Reproductive Biology Seminar Series: Neuroanatomical Methods for Evaluating the Reproductive Neuroendocrine Axis. University of Illinois Urbana; Urbana, IL. (September 1995)
- 4. Symposium Presentation: The GnRH System of Seasonal Breeders: Anatomy and Plasticity. 28th Annual Meeting of the Society for the Study of Reproduction; University of California at Davis; Davis, CA. (July 1995)
- 5. Presentation: Sensitivity of the Male Reproductive Axis to Thyroid Hormone Deficiency During Early Postnatal Development: Anatomical, Endocrinological, and Behavioral Evidence. Michigan State University. (April 1997)
- 6. Presentation: Seasonal Reproduction: New Insights into the Action of Steroid and Thyroid Hormones. College of Medicine, Northeast Ohio University. (July 1997)
- 7. Presentation: Seasonal Reproduction: Neural Adaptations to Life Under the Stars. Chicago School of Medicine, Finch University. (October 1998)
- 8. Presentation: A Seasonal Brain: New Insights into the Neuroendocrine Control of Reproduction. College of Medicine, West Virginia University. (July 1999)
- 9. Presentation: Neural Substrates of Photoperiodic Integration: What Sees the Light? Dept. VCAPP, Washington State University; Pullman, WA. (November 2001)
- 10. Presentation: The Ovine Premammillary Region as a Photoperiodic Integration Site. Oregon Health & Sciences University: Portland, OR, (April 27-28, 2002)

- 11. Presentation Reproductive Sciences Program: *Photoperiodic Regulation of Reproduction in the Ewe.* Washington State University; Pullman, WA. (July 2002).
- 12. Presentation Control of Reproductive Neuroendocrine Activity in the Ewe: Anatomy of a Clock. University of Tokyo, College of Veterinary Medicine, Tokyo, Japan (December 2003)
- 13. Presentation Reproductive Sciences Program: Seasonality in Reproduction: Timing is Everything. Washington State University; Pullman, WA (June 2004)
- 14. Presentation *Time Marches on: Daily and Seasonal Contributions to Drug Seeking.* Oregon Health & Sciences University, CROET; Portland, OR (March 15, 2010).
- 15. Presentation *Temporal Organization of Drug Seeking*. Dept. Chemistry and Biochemistry, University of Alaska, Fairbanks; Fairbanks, AK (December 1, 2011).
- 16. Presentation *Time as a Determinant of Motivated Behaviors*. Dept. Biology, University of Alaska, Anchorage; Anchorage, AK (December 3, 2011).
- 17. Workshop Presentation *Discrepancies between Circadian Models in the Lab and Field.* Society for Research on Biological Rhythms. Destin, Fla., May 19-23, 2012.
- 18. Symposium Chair *Circadian Rhythms in the Wild.* Society for Research on Biological Rhythms. Destin, Fla., May 19-23, 2012.
- 19. Session Moderator *Hibernation: Behavior.* 22nd International Conference on Bear Research and Management, Provo, UT, Sept 15-20, 2013.
- 20. Presentation Circadian Rhythms in Hibernating Bears A riddle, wrapped in a mystery, surrounding a function. 22nd International Conference on Bear Research and Management, Provo, UT, Sept 15-20, 2013.
- 21. Presentation Seasonally Reversible Insulin Resistance and Leptin Sensitivity in Brown Bears (Ursus arctos horribillis). Dept. Physiology, West Virginia University, Morgantown, WV, March 28, 2016.
- 22. Presentation Reversible Insulin Resistance in Bears: What can this Teach us? Novo Nordisk Foundation, University of Copenhagen, Copenhagen, Denmark, April 24, 2016.
- 23. Presentation *The Naturally Reversible State of Insulin Sensitivity in Bears: Cell Autonomous and Exogenous Contributions.* 24th International Conference on Bear Research and Management, Anchorage, AK, June 12-16, 2016.
- 24. Presentation *Metabolic Fine Tuning Through Seasonally-Reversible Insulin Resistance*. Work-in-Progress Seminar. Dept. of Integrative Physiology and Neuroscience, Washington State University, Pullman, WA, October 25, 2017.
- 25. Presentation The Washington State University Bear Research, Education, and Conservation Center: Its History and Significance. United States Agricultural

- Information Network (USAIN) Annual Conference, Washington State University, Pullman, WA, October 25, 2017.
- 26. Presentation *Metabolic Flexibility in Bears: Natures' Most Advanced Hibernator?*Dept. Biology, Walla Walla University, Walla Walla, WA, April 24, 2018.
- 27. Presentation Seasonal physiology and the control of energy balance in grizzly bears. School of Molecular Biosciences, Washington State University, Pullman, WA, November 29, 2018.
- 28. Presentation Seasonally reversible physiology: Lessons from a Bruin. Dept. Molecular Medicine, UMASS College of Medicine, June 23, 2021.
- 29. Presentation *Reversible physiology of bears*. Dept. Nutrition and Exercise Physiology, WSU, September 29, 2021.

> Other:

- 1. Neuroscience Program overview and lab tour for prospective undergraduate students. (Presented with Dr. Barbara Sorg: 2002, 2003, 2004)
- 2. Research Program overview for WSU Neuroscience Club. (November: 2002, 2003, 2004, 2017, 2018)
- 3. Research Laboratory Overview for prospective veterinary students (March 2006)
- 4. WSU ALIVE (2002, 2006, 2007, 2009)
- 5. WSU in Seattle, Student Recruiting (Neuroscience program representative and presenter; September 2006, 2007)
- 6. WSU Bear Center Research Overview. WSU College of Veterinary Medicine Theriogenology Club (April 2016).
- 7. WSU Bear Center Research Overview. WSU College of Veterinary Medicine ZEW Club (September 2012, April 2014, April 2016)
- 8. WSU Bear Center Research Overview. WSU College of Engineering, Bioengineering Club (October 2019)

Student Mentoring:

Ph.D.

- **SLEIPNESS**, Evan (IPN) Neuroscience (Co-Chair with Barb Sorg), Ph.D. requirements completed, June 2006; served as post-doctoral mentor until June, 2007. Completed M.D. and now is in private practice.
- WARE, Jasmine (IPN) Neuroscience, PhD, Dec. 2012; served as post-doctoral comentor with Dr. Karyn Rode, USGS, AK until May, 2016. Currently employed by Dept. of Environment, Government of Nunavut, Canada.
- **BROWNING**, Jenny (IPN) Neuroscience (Co-Chair with Barbara Sorg), PhD, Oct. 2012. Currently Scientific Review Officer, National Institutes of Health
- **GUO**, Rong (IPN) Neuroscience (Co-Chair with Steve Simasko), July, 2016. Currently post-doctoral fellow at University of Pittsburgh.

M.S.

GEHRING, Jamie (SBS) – Zoology, 2015-2017. RIGANO, Kimberly (SBS) – Zoology, 2015-2017. MARINELLI, Nicole (IPN) – Vet Med Sci., 2014-2020 HAPNER, HANNAH (SBS) – Biology, 2018-2021 VINCENT, ELLERY (SBS) – Biology, 2021-PRESENT

Graduate Student Committees

SIEGFORD, Janice (IPN) - Neuroscience, Ph.D. - completed, May 2006 HERSHEY, Jack (IPN) - Neuroscience, Ph.D. - completed, May 2009 **HUTTON**, Alene (IPN) – Pharmacology/Toxicology, M.S. – completed, Dec. 2009 **HUSTON**, Nathaniel (IPN) – Neuroscience, M.S. – completed, May 2009 WILSON, Wendy (Psychology) - Psychology, Ph.D - completed, May 2009 **BOWMAN**, Jennifer (IPN) – Neuroscience, M.S. – completed; Molecular Biology, Ph.D. - completed, Feb. 2010 DARLING, Rebecca (IPN) - Neuroscience, Ph.D. - completed, May 2010 **STAHLMANN**, Megan (Univ. Idaho) – Veterinary Science, Ph.D. - withdrew **LEE**, Brian (IPN) – Neuroscience, Ph.D. – completed, December 2011 **PHILLIPS**, Derrick (IPN) – Neuroscience, Ph.D. – May 2017 **SAXTON**, Michael (SBS/CAHNRS) – Biology, Ph.D. – Completed 2021 MILLICAN, Nicholas (IPN) – Neuroscience, Ph.D. – in progress JASPER, Coty (IPN) - Neuroscience, Ph.D. - in progress **BECKNER**, Adam (SBS) – Biology, Ph.D. – in progress **GEE**, Alexia (SBS) – Biology, completed, May 2020 **TROJAHN,** Shawn (SBS) – Biology, M.S. – completed, November 2020 **CURTIS**, Grace (SBS) – Biology, Ph.D. – in progress JOSTEN, Mary (IPN) - Neuroscience, Ph.D. - in progress CHOI, Pique (IPN) – Neuroscience, Ph.D. – in progress

Other student mentoring:

Veterinary Students (summer research fellowship)

FROELICH, Nicole (2011 summer); WSU student PARKER, Leanne (Joy) (2012 summer); Univ. Wisconsin student SHAVER, Kaylie (2017, 2018 summer); WSU student, Research Scholar SUN, Grace (2021 summer); WSU student, Summer Research Fellow

Graduate Student Laboratory Rotations (Neuro590,591 research credit)

SLEIPNESS, Evan (2001-2006) PETERS, Jim (2001) NATARAJAN, Reka (2003-2004) DARLING, Rebecca (2004) BROWNING, Jenny (2007-2008) WARE, Jasmine (2008 summer) LUMPER, Nathan (2012-2013) MILLICAN, Nicholas (2016-2017)

Undergraduate Honors Thesis

FAUNCE, Jessica (2016-2017) GONZALEZ, Jazmin Orae (2021-present)

Undergraduate Student Laboratory Rotations (Neuro499/495 research credit)

RILEY, Jarrett (2001-2004)

WOODY, Renee (2002-2003)

RONYANE, Bernadette (2005-2006)

ALCOTT, Brandon (2006)

PATTON, Tiffany (2006-2007)

DECKER, Caroline (2006-2007)

URION, Kimberly (2006-2007)

DOLINKO, Stephen (2006-2008)

PARK. Min (2007-2008)

RAKE, Andrea (2007-2008)

MYTINGER, Andrea (2007-2009)

BOND, Alexandra (2008-2010)

GRIMES, Matthew (2008-2009)

GABER, Jamie (2008-2010)

ROBERTS, Brandon (2009-2010)

FAUNCE, Jessica (2015-2016; Honors College)

BRENNAN, Healani (2015-2016)

MANIS, Kristina (2016-present)

WILLOUGHBY, Katherine (2016-2017)

GRAHAM, Matthew (2016-2017; Honors College)

McPHEE, Madeline (2018-2020)

WANG, Tina (2018-2019)

WEIL, Colby (2018-2019)

Other Students:

(UDOC program, WWAMI medical education program; Univ. Idaho, WSU)

CLOPTON, Brandy (2004)

HAFEZ, George (2004)

(WSU, Alcohol and Drug Abuse Program, mentor of undergraduate research award recipient)

BROWN, Jeffrey (2004-2005)

BOND, Alexandra (2008-2010)

Post-doctoral Mentoring

SLEIPNESS, Evan, PhD – VCAPP, Postdoctoral trainee (2006-2007)

SERGEEVA, Anna, MD – VCAPP, Postdoctoral trainee (2005-2009)

WARE, Jasmine, PhD – IPN (formerly VCAPP), Postdoctoral trainee (2013-2016)

Teaching (oldest first):

University of Illinois at Urbana/Champaign, Urbana, IL

- Neurotoxicology and Neuropharmacology: Lecturer and Laboratory Instructor (1986) 3hr/week, 16 weeks.
- Graduate Neurotoxicology: Department of Veterinary Biosciences (1987) 3hr/week, 16 weeks

Xavier University, Cincinnati, OH

Functional Neuroscience: Department of Biology (1998-2000) – 3hr/week, 16 weeks

University of Cincinnati, Cincinnati, OH

- Medical Neuroscience (1999) 1hr/week, 8 weeks
- Systems Neuroscience Graduate Course: "Neuroendocrine Control of Reproduction" (1999) – 3hr/week, 8 weeks

University of Idaho, Moscow, ID

Advanced Reproductive Physiology: Lecturer (Course Director: Troy Ott, Ph.D.) (2001)
 – 8hr total

Washington State University, Pullman, WA

- NEURO 138: Exploration of Neuroscience (2001 2018) 1hr
- NEURO 404: Neuroanatomy (Course Director: 2001 PRESENT) 3-12hr/week, 16 weeks
- NEURO 540A: Neuroanatomy (2015 PRESENT) 4hr/week, 5 weeks
- NEURO/VPh 529: Cellular and Molecular Neurobiology (2001 2003) 4hr/week, 5 weeks (neuroanatomy block)
- NEURO 520: Fundamental Neuroscience (2007-2014) 4hr/week, 3 weeks (neuroanatomy block)
- NEURO 54x: Special Topics in Integrative Neuroscience (Course Director: 2002, 2005 2007, 2009, 2012) 3hr/week, 16 weeks
- NEURO 563: Deconstruction of Research (2019) 1.5hr/week, 2 weeks
- NEURO/VPh 590: Seminar Series (Course Director: 2001, 2002, 2007, 2009) 1hr/week, 16 weeks
- VM508p: Research orientation for veterinary students (Course Director: 2007 2015) 1hr/week, 16 weeks
- VM521p: Veterinary Neuroscience (2001 2006 [LAB ONLY]) 3hr/week, 10 weeks

Continuing Education - WSU CVM Teaching Academy:

Metacognition in the classroom, Julie Stanton, Utah State Univ., Sept. 22, 2017

- Preparing learners to be experts we need, Maria Mylopoulos, PhD, The Wilson Institute, Univ. Toronto, Mar. 21, 2018
- Teaching strategies for cognitive integration, Nicole Woods, PhD, The Wilson Institute, Univ. Toronto, Mar. 22, 2018
- Assessment matters: aligning assessment with curricular goals, Maria Mylopoulos and Nicole Woods, The Wilson Institute, Univ. Toronto, Mar. 22, 2018
- Heiko Jansen Presentation: Teaching Academy Workshop "What's on Friday?
 A New Twist to a Traditional Lecture". WSU College of Veterinary Medicine, June 27, 2018

Continuing Education - Other:

 Implicit bias awareness training, Jamie Nolan, PhD, Washington State University, Oct. 17, 2019

Media Coverage:

- Science Diaries Pulse of the Planet "Grizzlies", March 2009, 2015, 2016, https://www.stitcher.com/podcast/jim-metzner/pulse-of-the-planet#/
- Nat Geo Wild (Grizzly Creek Films) "How does bear spray work?", December, 2011 https://www.youtube.com/watch?v=__srSIGCMw4
- PBS In Close "Why fat bears don't get diabetes?", May 2015. http://www.pbs.org/video/2365487970/
- NY Public Radio Radiolab "How do bears not get diabetes?", September 2016.
- Canadian Broadcasting Corporation Radio "The answer to obesity and diabetes might be found in hibernating bears", March 2018. http://www.cbc.ca/player/ play/1174383171644
- Mashable "What would it be like to smell the world like a bear?", Part of Fat Bear Week 2019, September 2019. https://mashable.com/article/bear-sense-of-smell/
- New Hampshire Public Radio "Hibernation in bears.", for Outside/In with Sam Evans-Brown – Apple Podcast, November 2019. http://outsideinradio.org/
- WIRED magazine "Could humans hibernate for space travel?", YouTube, Dec. 19, 2019 https://www.youtube.com/watch?v=aGSMEhKPleo&feature=emb_logo
- TOP OF MIND (BYU radio and Sirius XM) "How bear hibernation might work for humans", Jan. 22, 2020.
- CBS Sunday Morning "What can the hibernation of bears teach humans?", Nov. 1, 2020.
- Daily Evergreen Quoted on response to Stop Animal Exploitation request to launch investigation of WSU research, July 2021.
- Washington State Magazine "Grizzly bear hibernation may hold secrets to human health", upcoming winter '21 issue

University/College Service:

University Committees

- Institutional Animal Care and Use Committee (WSU; July 2000- July 2006)
- Center for Reproductive Biology Steering Committee (WSU; 2004-2014)
- Electron Microscopy Center Steering Committee (WSU; 2005-2012)
- Faculty Senate Research and Arts Committee (WSU; 2009-2012 [Co-Chair 2010-2012])
- Faculty Senate Honorary Doctorate Degree Committee (WSU; 2017-present)
- Faculty Senate Faculty Affairs Committee (WSU; 2021-present
- Faculty Senate Senator, College of Veterinary Medicine, Dept. Integrative Physiology and Neuroscience (WSU; 2019-present)

College Search Committees

- Search Committee for Clinical Veterinary Neurologist Faculty Position in Dept. of Veterinary Clinical Sciences (VCS)
- Search Committee for Clinical Veterinary Anesthesiologist Faculty Position in Dept. of Veterinary Clinical Sciences (VCS)
- Search Committee for Clinical Veterinary Neurologist Faculty Position in Dept. of Veterinary Clinical Sciences (VCS)
- Search Committee for Rocky Crate Endowed Chair Position in Dept. Veterinary Microbiology and Pathology (VMP)
- Search Committee for Neurobiology/Substance Abuse Faculty Position in Dept. of Veterinary and Comparative Anatomy, Pharmacology and Physiology (VCAPP).
- Search Committee for Anatomy Faculty Position in Dept. of Veterinary and Comparative Anatomy, Pharmacology and Physiology (VCAPP)
- Search Committee for Neuroscience Faculty Position in Dept. of Veterinary and Comparative Anatomy, Pharmacology and Physiology (VCAPP)
- Search Committee for Drug Abuse Positions in Dept. VCAPP
- Search Committee for Systems/Circuits Neuroscientist in Dept. Integrative Physiology and Neuroscience (IPN)

College/Departmental Committees – IPN

- Graduate Neuroscience Curriculum Committee (2002-2004, 2007-2009)
- Graduate Studies Committee (2001-2005, 2007-2008; Chair, 2009-2016)
- Graduate Program Executive Committee (2015-2017)
- Undergraduate Neuroscience Curriculum Committee (2002-PRESENT)
- College Research Committee (2007-2009)
- Research Scholars Committee (Chair, 2007-2015)
- College of Veterinary Medicine Faculty Executive Committee (2016-2018)
- College of Veterinary Medicine Tenure and Promotion Committee (2020-present)
- Search Committee for IPN Chair (Chair, 2020-2021)

Other Professional Activities:

Journal Editorial Boards

- Frontiers in Endocrinology
- Frontiers in Physiology
- Journal of Reproductive Biology and Endocrinology (Advisor)

Journal Reviewer - Ad Hoc

- American Journal of Physiology: Regulatory, Integrative and Comparative Physiology
- Biological Psychiatry
- Biology of Reproduction
- Cell and Tissue Research
- Chronobiology International
- Domestic Animal Endocrinology
- Endocrine Journal
- Endocrinology
- European Journal of Pharmacology
- Frontiers in Physiology
- Journal of Biological Rhythms
- Journal of Comparative Physiology
- Journal of Neuroscience
- Journal of Reproductive Biology and Endocrinology
- Journal of Reproduction and Fertility
- Physiology and Behavior
- Veterinární Medicina (Czech Academy of Agricultural Sciences)

Grant Reviewer

- National Science Foundation
- USDA/NRI
- Washington State University Alcohol and Drug Abuse Program
- University of West Virginia Howard Hughes Grant Program
- USDA/NRI (2007, 2008)
- NIH-CEBRA (2008, 2012)
- NSF (2014-2018)
- NIH-NIDA (2015-2017)
- French National Research Agency (ANR; 2019)
- Novo Nordisk Fonden (2021)

Scientific Conferences Attended (since 2000)

- Northwest Reproductive Sciences Symposium-Portland, OR. (April 2003)
- Society for Neuroscience New Orleans, LA. (November 2000)
 San Diego, CA. (November 2001)
 New Orleans, LA. (November 2003)
 San Diego, CA. (October 2004)

Washington, DC. (November 2005) Atlanta, GA. (November 2006) San Diego, CA. (November 2007) Washington, DC. (November 2008) Chicago, IL. (October 2009) San Diego, CA. (November 2010) Washington, DC. (October 2011) New Orleans, LA (October 2012)

- Society for the Study of Biological Rhythms Destin, FL (May 2012)
 Big Sky, MT (May 2014)
- Society for the Study of Reproduction Omaha, NE (July 2006)
 San Antonio, TX (July 2007)
- Keystone Symposium
 Big Sky, MT (May 2011 Extreme Metabolism)
 Kyoto, Japan (October 2015 Diabetes)
- International Hibernation Symposium Semmering, Austria (August 2012)
- International Association for Bear Research and Management (IBA)
 Ottawa, ON, Canada (July 2011)
 Provo, UT (September 2013)
 Anchorage, AK (June 2016)
 Quito, Ecuador (November 2017)

Selected Meeting Abstracts (since 1994):

- 1. Lehman MN, Berriman SJ, Jansen HT, Parfitt D, Dahl GE, Evans NP, and Karsch FJ. 1994. Is fos expression in GnRH and other neurons during the estradiol-induced LH surge of the ewe associated with neurosecretory or behavioral events? Soc. Study Reprod. Abstr. 521
- 2. Adrian BA, Jansen HT, Lehman MN, and Goodman RL. 1995. Estradiol increases fos expression in a subset of estrogen receptor-containing neurons in the preoptic area. Soc. Neurosci. Abstr. 743.2.
- 3. Lubbers LS, Hileman SM, Jansen HT, Lehman MN, and Jackson GL. 1995. Testosterone-induced activation of tyrosine hydroxylase-containing neurons of the A14 and A15 hypothalamic nuclei in male sheep. Soc. Neurosci. Abstr. 745.2.
- 4. Jansen HT, Berriman SJ, Stevens PJ, Zeitler P, and Lehman MN. 1995. Cloning and sequencing of cDNA for hamster GnRH. Soc. Neurosci. Abstr. 745.4.
- 5. Jansen HT, Urbanski HF, and Lehman MN. 1996. Thyroxin acts centrally to attenuate short photoperiod responses in male Syrian hamsters. Soc. Study Reprod. Abstr. 149.
- 6. Jansen HT, Khosla A, Berriman SJ, Iwamoto GA, and Lehman MN. 1996. Neonatal hypothyroidism increases GnRH cell number in specific regions of the adult male hamster brain. Soc. Neurosci. Abstr. 119.2.
- 7. Berriman SJ, Jansen HT, Shaffer K, Humbach K, and Lehman MN. 1996. Embryonic development of GnRH neurons in Syrian hamsters. Soc. Neurosci. Abstr. 119.1.

- 8. Lehman MN, Jansen HT, Goodman RL, Wood RI, and Coolen LM. 1997. Simultaneous demonstration of anterograde and retrograde connections in the brain: co-injections of BDA and cholera toxin. Soc. Neurosci. Abstr. 883.6
- 9. Hileman SM, Jansen HT, Lubbers LS, Kuehl DE, and Lehman MN. 1997. Afferent inputs to the anterior hypothalamic area/preoptic are (AHA/POA) of the ewe: potential implications for neural regulation of seasonal reproduction. Soc. Neurosci. Abstr. 166.69.
- 10. Jansen HT, Auyung E, Stefanovic I, Lehman MN, and Goodman RL. 1997. The neural afferents and efferents of the hypothalamic A15 region in the ewe: combined anterograde and retrograde tract tracing. Soc. Neurosci. Abstr. 591.15.
- 11. Fitzgerald M, Jansen HT, Dahl GE, Evans NP, Thrun L, Karsch FJ, and Lehman MN. 1999. Is the seasonal alteration in synaptic input to GnRH neurons thyroid dependent? Soc. Neurosci. Abstr.
- 12. Jansen HT, Cutter CT, Anderson GM, Hardy SL, Lehman MN, and Goodman RL. 1999. Restricted distribution of estrogen receptor (□)-containing afferents to the hypothalamic A15 region in the ewe. Soc. Neurosci. Abstr.
- 13. Goodman RL, Coolen LM, Jansen HT, and Lehman MN. 1999. Close associations between dynorphin-containing boutons and gonadotropin-releasing hormone cells in the mediobasal hypothalamus of the ewe: possible role in inhibition of LH pulse frequency. Soc. Neurosci. Abstr.
- 14. Romeo RD, Jansen HT, Diedrich SL, and Sisk CL. 1999. Regulation of mating behavior and estrogen receptor-□ (ER□) by estradiol in prepubertal and adult male Syrian hamsters. Soc. Neurosci. Abstr.
- 15. Anderson GM, Jansen HT, and Goodman RL. 1999. Noradrenergic A1 neurons are not activated by estradiol negative feedback on LH secretion in anestrous ewes. Soc. Neurosci. Abstr.
- 16. Lehman MN, Viguié C, Jansen HT, and Karsch FJ. 2000. Seasonal plasticity in the adult GnRH system. Soc. Study Reprod. Abstr. 149.
- 17. Jansen HT, West C, Lehman MN, and Padmanabhan V. 2000. Changes in ovarian estrogen receptor-β mRNA expression prior to ovulation in the ewe. 34th Ann. Endocrine Soc. Meet. Proc.
- 18. Jansen HT, Cutter CS, Hardy S, Lehman MN, and Goodman RL. 2001. Plasticity within the GnRH system of the ewe: seasonal changes in identified GnRH afferents and glial association. Soc. Neurosci. Abstr. 731.10.
- 19. Sleipness EP and Jansen HT. 2002. Do premmamillary neurons directly project to GnRH neurons in the sheep? Washington State University, College of Veterinary Medicine, Student Research Symposium
- 20. Bailie TM, Li N, Jansen HT, and Sorg BA. 2002. Dopamine receptor stimulation or blockade in the medial prefrontal cortex suppresses extinction of a conditioned fear response in rats. Soc. Neurosci. Abstr. 782.16.
- 21. Jansen HT, West C, and Padmanabhan V. 2003. Differential regulation of ovarian estradiol ßmRNA expression by acidic and less acidic forms of follicle-stimulating hormone (FSH). 37th Annual Meeting of the Endocrine Society, Philadelphia, PA. Proc. Abstr.
- 22. Hileman SM, Bache D, Martin G, Karsch FJ, Jackson GL, Scott CJ, and Jansen HT. 2003. Does photoperiod regulate seasonal fluctuations in leptin? Annual meeting of the Society for Reproduction, Cincinnati, OH. Soc. Study Reprod. Abstr.
- 23. Steckler TL, Jackson LM, Lee JS, Manikkam M, Sarma HN, Yu S, Mohan Kumar PS, Jansen HT, Bartol F, and Padmanabhan V. 2003. Prenatal testosterone excess programs fetal growth retardation and reduced organ growth. Annual meeting of the Society for Reproduction, Cincinnati, OH. Soc. Study Reprod. Abstr.

- 24. Sleipness EP, Sorg BA, Bailie TM, and Jansen HT. 2003. Destruction of the suprachiasmatic nucleus alters cocaine-induced reinstatement of conditioned place preference behavior in rats. Soc. Neurosci. Abstr. 420.11.
- 25. Hileman SM, McManus CJ, Valent M, and Jansen HT. 2003. N methyl aspartic acid (nma) lesions of the anterior hypothalamic area in the ewe delays onset of anestrus. Soc. Neurosci. Abstr. 827.1.
- 26. Jansen HT and Sleipness EP. 2003. Role of the premammillary region and constant light in timing of reproductive transitions in the ewe. Soc. Neurosci. Abstr. 924.12.
- 27. Sleipness EP, Bailie TM, and Jansen HT. 2003. Seasonal variation in net neural inhibition of the GnRH pulse generator in the ewe. Soc. Neurosci. Abstr. 924.13.
- 28. Padmanabhan V, Foster DL, and Jansen HT. 2003. Fetal programming: prenatal exposure to testosterone propionate via estrogenic action increases estrogen receptor □ mRNA expression in ovarian follicles of sheep. 84th Annual Meeting of the Endocrine Society, Philadelphia, PA. Proc. Abstr.
- 29. Sleipness EP, Sorg BA, and Jansen HT. 2004. Time of day affects sensitization to cocaine. Soc. Neurosci. Abstr. 803.01.
- 30. Jansen HT, Kornoely JA, Clopton BK, and Hafez G. 2004. Premammillary lesions in the ewe disrupt Per1 colocalization in tuberomammillary histamine neurons. Soc. Neurosci. Abstr. 1001.3.
- 31. Jansen HT, Rehman A, Sleipness EP, and Hutton A. 2005. Photoperiod and time-of-day variation in both clock gene and histidine decarboxylase (HDC) mRNA expression in the tuberomammillary region (TM) of the ewe. Soc. Neurosci. Abstr. 767.8.
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/Jansen/Heiko

REV: 5/3/2022 (HTJ)