

CURRICULUM VITAE: C. SUE CARTER

PROFESSIONAL EXPERIENCE:

2021-present	Professor of Psychology, University of Virginia, Charlottesville
2019-present	Distinguished University Research Scientist and Rudy Professor Emerita of Biology, Indiana University
2014-2019	Director, The Kinsey Institute Rudy Professor of Biology, Indiana University, Bloomington
2013-2014	Professor, Department of Psychiatry, University of North Carolina, Chapel Hill and Visiting Research Professor, Northeastern University, Boston
2011-2013	Principal Research Scientist, Research Triangle Institute International, Research Triangle Park, North Carolina
2001-2012	Professor of Psychiatry, and Co-Director, Brain-Body Center Department of Psychiatry, University of Illinois at Chicago Adjunct Professorships, Departments of Physiology and Biophysics; Anatomy and Cell Biology; Psychology and College of Nursing.
1997-2001	Distinguished University Professor, Department of Biology, University of Maryland, College Park, MD
1985-2001	Guest researcher, National Institutes of Health, National Institute of Child Health and Human Development (Developmental Endocrinology Branch), Bethesda, MD
1985-1997	Professor, Department of Zoology, University of Maryland. College Park, MD
1984-1985	Professor of Ecology, Ethology and Evolution and Psychology and Program in Neural and Behavioral Biology, University of Illinois, Champaign, IL
1982-1983	Program Associate in Psychobiology, National Science Foundation, Washington, DC
1981	Visiting Scholar, Department of Physiology, Stanford University Medical School, Stanford, CA
1977-1984	Associate Professor, Departments Ecology, Ethology and Evolution and Psychology and Program in Neural and Behavioral Biology, University of Illinois, Champaign, IL
1974-1977	Assistant Professor, Departments of Ecology, Ethology and Evolution and Psychology and School of Basic Medical Sciences, University of Illinois, Champaign, IL Visiting Assistant Professor, Department of Psychology, University of Illinois, Champaign, IL
1973-1974	Research Fellow, Illinois Department of Mental Health, Illinois State Psychiatric Institute, Chicago, IL
1972-1973	Research Fellow, Illinois Department of Mental Health, Laboratory for Human Psychopharmacology, Champaign,

EDUCATION:

Undergraduate: Drury College, Springfield, MO
B.A., *summa cum laude*, Major: Biology
Graduate: University of Arkansas, Fayetteville, AR
Ph.D., Major: Zoology
Postdoctoral: Michigan State University, East Lansing, MI
NIH Postdoctoral Trainee, (Biology)

HONORS AND AWARDS (selected):

2014-2019 Rudy Professor of Biology, Indiana University
2016 Distinguished Alumni Award, Life-time Achievement, Drury College, Springfield, MO
2009 Wayner-NNOXe Pharmaceutical Award for Translational Research, awarded by the International Behavioral Neuroscience Society
2004-2005 President, International Behavioral Neuroscience Society
2001 J. W. Fulbright, College of Arts and Sciences, Distinguished Alumni Award, University of Arkansas, Fayetteville, AR
2000 Rockefeller Foundation, Bellagio Conference Center Fellowship
1997-2001 Distinguished University Professorship, University of Maryland, College Park, MD
1993-1998 Research Scientist Award (K05), National Institute of Mental Health.
1985 Distinguished Alumni Award, Drury College
1980 Pre-medical Professor of the Year, University of Illinois, Urbana-Champaign, IL
1970-1971 National Institutes of Health, Postdoctoral Fellowship

The following link leads to approximately 400 research publications with approximately 31,700 citations, an h index of 89, and an i10 index of 274.

<https://scholar.google.com/citations?user=Ev3qjxwAAAAJ&hl=en>

RESEARCH SUPPORT:

Current or recent:

National Institutes of Health (NICHD), 4/2019-4/2024. R01 (HD 098112), PI: Jessica J. Connelly; Co-PI: C.S. Carter *Mechanisms of maternal brain changes with birth interventions.*
National Institutes of Health (NICHD), 2014-2020. P01, (HD 075750) PI: C.S. Carter. *Developmental Consequences of Birth Interventions.* PI Project 1 and Core A.
National Institutes of Health (NICHD), 2018-2020. PI: E. MacLean. *Oxytocin Pathways and the Health Effects of Human-Animal Interaction.* Co-Investigator. C. S. Carter
National Institute of Health (NIAAA), 2016-2020. K23 (AA023845). PI: J.C. Flanagan (Medical College of South Carolina). *Effects of Oxytocin on Alcohol Craving and Intimate Partner Aggression.* Consultant: C.S. Carter.
National Institutes of Health (NIMHD), 2017-2022. R01. PI: B. Goodin (University of Alabama, Birmingham). *Racial and socioeconomic differences in chronic low back pain.*
Leuven University Hospitals; Belgium, 2017-2020. PI: E. Janssen. “*Affective and behavioral dimensions of sexuality and their relevance to relationship quality and health: A longitudinal study*” and “*A multimethod assessment of individual- and dyad-based sexual and relationship processes.*”

Johnson and Johnson Foundation, 2017-2020. PI: R. White-Traut (Children's Hospital of Wisconsin, Milwaukee). *Oxytocin in premature infants*. Collaborative Project.

Grants for Mentoring (since 2000):

- Japanese Federal Government Support for Study Abroad. 2001-2003, sponsor for mentored salary award for Yukiyo Yamamoto, MD, Ph.D.
- National Institutes of Health (NICHD), sponsor for mentored RCDA for Karen Bales, 2000-2003.
- National Institutes of Health (NICHD), sponsor for mentored RCDA for Kristin Kramer, 2001-2004.
- National Institutes of Health (NICHD), 2002-2005, sponsor for minority supplement to PO1 for Pamela Epperson.
- National Institutes of Health (NIMH), Sponsor for mentored K01 award for Bruce Cushing, Ph.D. 2000-2005.
- American Psychological Association. 2004-2006. Sponsor for mentored Postdoctoral Fellowship for Ericka Boone.
- National Institutes of Health (NIMH), Sponsor for mentored RCDA for Ericka Boone, 2006-2007.
- National Institutes of Health. National Institute on Drug Abuse. 2004-2007. Co-sponsor for mentored NRSA Predoctoral Fellowship for Adam Perry.
- National Institutes of Health (NIMH), Sponsor for mentored RCDA for Angela Grippo, 2004-2007.
- National Institutes of Health (NIMH), 2004-2009. T32 award to UIC in Neuroscience. Preceptor and Advisory Committee.
- National Institutes of Health, 2007-2012. Building Interdisciplinary Research Careers in Women's Health (BIRCWH) Grant; University of Illinois at Chicago; Faculty Mentor.
- National Institutes of Health (NINR). Co-sponsor for mentored NRSA Predoctoral Fellowship for Lindsey Garfield. 2007-2009. (*Postpartum depressive symptoms: A search for biologic markers*)
- National Institutes of Health (NIMH). Co-sponsor for mentored NRSA Predoctoral Fellowship for Leah Rubin. 2007-2009.
- National Institutes of Health (NIMH), Co-sponsor for mentored K award, for Suma Jacob, MD, PhD, 2007-2012. (*Autism: Neuropeptide hormones and potential pathway genes*).
- National Institutes of Health (NIMH), Sponsor for mentored postdoctoral RCDA for Jason Yee (2009-2011). (*Social support and oxytocin: An animal model*)
- National Institutes of Health (NIMH), Sponsor for mentored postdoctoral RCDA for Jennifer Stevenson (2009-2011). (*Estrogen and oxytocin: Interactive effects on anxiety and depression*).
- National Institutes of Health (BIRCWH), Sponsor for mentored K award for Leah Rubin (2010-2012). (*Oxytocin and schizophrenia*).
- National Institutes of Health (NHLBI), Sponsor for mentored postdoctoral RCDA for Melissa Scotti (2012-2015). (*Oxytocin and depression: The role of the autonomic nervous system*)
- National Institutes of Health (NIMH), Co-sponsor for mentored K award for Leah Rubin (2012-2017). (*Effects of stress and stress hormones on cognition in HIV-infected women*).
- National Institutes of Health (NIMH), Co-sponsor for mentored K award for Sueni Massey (2015-2020)
- National Institutes of Health (NICHD), Sponsor for Competitive Supplement to our P01 award for Marcy Kingsbury (2017-2019). (5%tile, but not awarded)
- National Institutes of Health (NICHD), Sponsor for mentored postdoctoral RCDA for Allison Perkeybile (2018-2021)

PUBLICATIONS:

Volumes:

- Carter, C. S. (Ed.), 1974. *Hormones and Sexual Behavior*. Dowden, Hutchinson, & Ross, Inc. In *Benchmark Papers in Animal Behavior* series.
- Carter, C. S., Lederhendler, I. I., and Kirkpatrick, B. (Eds.) 1997. *The Integrative Neurobiology of Affiliation*. *Annals of the New York Academy of Sciences*, Vol. 807. (Re-released by MIT Press, Cambridge, MA, 1999).
- Uvnas-Moberg, K., and Carter, C. S. (Eds) 1998. Special issue of *Psychoneuroendocrinology* : Proceedings of a Conference Sponsored by the Wenner-Gren Foundation: Stockholm, Sweden.
- Cacciopo, J, Berntson, G.G., Adolphs, R, Carter, C. S., Davidson, J., McClintock, M.K., McEwen, B. S. Meaney, M. J., Schacter, D. L., Sternberg, E. M., Suomi, S.S., Taylor, S.E., (Eds) 2002. *Foundations in Social Neuroscience*. A Bradford Book, MIT Press, Cambridge, MA.
- Carter, C.S. Ahnert, L., Grossmann, K., Hrdy, S.B., Lamb, M.E., Porges, S.W., Sachser, N., (Eds) (2006). *Attachment and Bonding: A New Synthesis*. Cambridge, MA: MIT Press.

Research Articles, Reviews, Chapters and Other Refereed Papers:

- Carter, C. S., & Marr, J. N. 1970. Olfactory imprinting and age variables in the guinea pig, *Cavia porcellus*. *Animal Behaviour*, 18, 238-244.
- Carter, C. S. 1971. Effects of olfactory experience on the behaviour of the guinea pig, *Cavia porcellus*. *Animal Behaviour*, 21, 241-256.
- Carter, C. S., & Schein, M. W. 1971. Sexual receptivity and exhaustion in the female golden hamster. *Hormones and Behavior*, 2, 191-200.
- Carter, C. S., Clemens, L. G., & Hoekema, D. A. 1972. Neonatal androgen and adult sexual behavior in the golden hamster. *Physiology and Behavior*, 9, 89-95.
- Doty, R. L., Carter, C. S., & Clemens, L. G. 1972. Olfactory control of sexual behavior in the male and early-androgenized female hamster. *Hormones and Behavior*, 2, 325-335.
- Carter, C. S. 1972. Postcopulatory sexual receptivity in the female hamster: The role of the ovary and adrenal. *Hormones and Behavior*, 3, 261-265.
- Schein, M. W., Diamond, M., & Carter, C. S. 1972. Sexual performance levels of male Japanese quail. (*Coturnix japonica*). *Animal Behaviour*, 20, 383-385.
- Schein, M. W., & Carter, C. S. 1972. Sexual behaviour and novel stimuli in male Japanese quail. (*Coturnix japonica*). *Animal Behaviour*, 20, 383-385.
- Carter, C. S., Michael, S. J., & Morris, A. H. 1973. Hormonal induction of female sexual behavior in male and female hamsters. *Hormones and Behavior*, 4, 129-141.
- Carter, C. S. 1973. Olfaction and sexual receptivity in the female golden hamster. *Physiology and Behavior*, 10, 47-51.
- Carter, C. S. 1973. Stimuli contributing to the decrement in sexual receptivity of female golden hamsters. *Animal Behaviour*, 21, 827-834.
- Carter, C. S. 1973. Review of *Ethological Studies of Child Behavior*, edited by N. Blurton Jones & *An Ethological Study of Children's Behaviour*, by W. C. McGrew, *Animal Behaviour*, 21, 837.
- Carter, C. S., & Porges, S. W. 1974. Ovarian hormones and the duration of sexual receptivity in the female golden hamster. *Hormones and Behaviour*, 5, 303-315.
- Carter, C. S., & Landauer, M. R. 1975. Neonatal hormones experience and adult lordosis and fighting behavior in the golden hamster. *Physiology and Behavior*, 14, 1-6.
- Carter, C. S., Landauer, M. R., Tierney, B. H., & Jones, T. 1976. Regulation of female sexual behavior in the golden hamster: Behavioral effects of mating and ovarian hormones. *Journal of Comparative and Physiological Psychology*, 90, 839-950.

- Carter, C. S. & Davis, J. M. 1976. Effects of drugs on sexual arousal and performance. In J. Meyers (ed.), *Forms of direct intervention in sexual disabilities*. Baltimore: Johns Hopkins Press.
- Greenough, W. T., Carter, C. S., Steerman, C., & DeVoogd, T. J. 1977. Sex differences in dendritic patterns in hamster preoptic area. *Brain Research*, 126, 63-72.
- Carter, C. S., Daily, R. F., & Leaf, R. 1977. Effects of *d*-amphetamine, chlorpromazine, chlordiazepoxide, and oxazepam on sexual responses in male and female hamsters. *Psychopharmacology*, 55, 195-201.
- Landauer, M. R., Banks, E. M., & Carter, C. S. 1977. Sexual preferences of male hamsters (*Mesocricetus auratus*). *Hormones and Behavior*, 9, 193-202.
- Carter, C. S., & Davis, J. M. 1977. Biogenic amines, reproductive hormones and female sexual behavior: A review. *Biobehavioral Reviews*, 1, 213-224.
- Carter, C. S., Bahr, J. M., & Ramirez, V. D. 1978. Monoamines, estrogen and female sexual behavior in the golden hamster. *Brain Research*, 144, 109-121.
- Huck, U.W., Carter, C.S., & Banks, E. M. 1979. Estrogen and progesterone interactions influencing sexual and social behavior in the brown lemming, *Lemmus trimucronatus*. *Hormones and Behavior*, 12 40-49.
- Dluzen, D. E., & Carter, C. S. 1979. Ovarian hormones regulating sexual and social behaviors in female prairie voles, *Microtus ochrogaster*. *Physiology and Behavior*, 23, 597-600.
- Carter, C. S. & Greenough, W. T. 1979. Sending the right sex messages. *Psychology Today*, 13, 112.
- Carter, C. S., Getz, L. L., Gavish, L., McDermott, J. L., & Arnold, P. 1980. Male-related pheromones and the activation of female reproduction in the prairie vole (*Microtus ochrogaster*). *The Biology of Reproduction*, 23, 1038-1045.
- McDermott, J. L., Fisher, J., & Carter, C. S. 1980. Long-term estrogen and progesterone and mating stimuli as regulators of female sexual receptivity in the Mongolian gerbil. *Behavioral and Neural Biology*, 29, 63-72.
- McDermott, J. L., & Carter, C. S. 1980. Ovarian hormones, copulatory stimuli and female sexual behavior in the Mongolian gerbil. *Hormones and Behavior*, 14, 211-223.
- Getz, L. L., & Carter, C. S. 1980. Social organization in *Microtus ochrogaster* populations. *The Biologist*, 62, 56-69.
- Getz, L. L., Carter, C. S., & Gavish, L. 1981. The mating system of the prairie vole, *Microtus ochrogaster*: Field and laboratory evidence for pair-bonding. *Behavioral Ecology and Sociobiology*, 8, 189-194.
- McCabe, P. M., Porges, S. W., & Carter, C. S. 1981. Heart period variability during estrogen exposure and withdrawal in female rats. *Physiology and Behavior*, 26, 535-538.
- Dluzen, D. E., Ramirez, V. D., Carter, C. S., & Getz, L. L. 1981. Male urine stimulates localized and opposite changes in luteinizing hormone-releasing hormones and norepinephrine within the olfactory bulb of female prairie voles. *Science*, 212, 573-575.
- Gavish, L., Carter, C. S., & Getz, L. L. 1981. Further evidence for monogamy in the prairie vole. *Animal Behaviour*, 29, 955-957.
- Carter, C. S., Witt, D. M., Kolb, B., & Whishaw, I. Q. 1982. Neonatal decortication and adult female sexual behavior. *Physiology and Behavior*, 29, 763-766.
- Huck, U. W., Carter, C. S., & Banks, E. M. 1982. Natural or hormone induced sexual and social behaviors in the female brown lemming, *Lemmus trimucronatus*. *Hormones and Behavior*, 16, 199-207.
- Gavish, L., Carter, C. S., & Getz, L. L. 1983. Male-female interactions in prairie voles. *Animal Behaviour*, 31, 511-517.
- Morrell, M.J., Dixen, J. M., Carter, C. S., & Davidson, J. M. 1984. The influence of age and cycling status on sexual arousability in women. *American Journal of Obstetrics & Gynecology*, 148, 66-71.

- Carter, C. S. 1985. Female sexual behavior. In Siegel, H. I. (ed), *The Hamster, Reproduction and Behavior*, pp. 173-189. New York: Plenum Press.
- Carter, C. S. 1985. Sexuality. In Tapp, J. T. & Schneiderman, N. (eds), *Behavioral Medicine*, pp. 405-435. Hillsdale, N. J.: Erlbaum & Associates.
- Segraves, R. T., Madsen, R., Carter, C. S. & Davis, J. M. 1985. Erectile dysfunction associated with pharmacological agents. In Segraves, R. T. and Schoenberg, H. W. (eds), *Diagnosis and Treatment of Erectile Disturbance*, pp. 23-63. New York: Plenum Press.
- Carter, C. S., & Getz, L. L. 1985. Social and hormonal determinants of reproductive patterns in the prairie vole. In Gilles, R. & Balthazart, J. (eds), *Neurobiology*, pp. 18-36. Berlin: Springer-Verlag.
- Carter, C. S. 1985. Hormones: A biobehavioral perspective. In: Treichler, P., Kramarae, C. & Stafford, B (eds), *For Alma Mater: Theory and Practice in Feminist Scholarship*. pp. 321-339. Champaign, IL: University of Illinois Press.
- Carter, C. S., Getz, L. L., & Cohen-Parsons, M. 1986. Relationships between social organization and behavioral endocrinology in a monogamous mammal. *Advances in the Study of Behavior*, 16, 109-145.
- Hsu, C. H. & Carter, C.S. 1986. Social isolation inhibits male-like sexual behavior in female golden hamsters. *Behavioral and Neural Biology*, 46, 242-247.
- Carter, C. S. 1986. Reproductive and adrenal systems. In M. Coles, E. Donchin, & Porges, S. W. (eds), *Psychophysiology: Systems, Processes, and Applications*. pp. 172-180. New York: Guilford Press.
- Carter, C. S., Witt, D. M., & Getz, L. L. 1986. Behavioral and physiological adaptations suggesting monogamy in the prairie vole (*Microtus ochrogaster*). In L. Drickamer (ed), *Behavioral Ecology and Population Biology*, Toulouse: Privat, I.E.C., pp. 41-46.
- Carter, C. S., Witt, D. M., Auksi, T., & Casten, L. 1987. Estrogen and the induction of lordosis in female and male prairie voles, (*Microtus ochrogaster*). *Hormones and Behavior*, 21, 65-73.
- Carter, C. S., Witt, D. M., Schneider, J., Harris, Z. L., & D. Volkening. 1987. Male stimuli are necessary for female sexual behavior and uterine growth in prairie voles (*Microtus ochrogaster*). *Hormones and Behavior*, 21, 74-82.
- Cohen-Parsons, M., & Carter, C. S. 1987. Males increase serum estrogen and estrogen receptor binding in brain of female voles. *Physiology and Behavior*, 39, 309-314.
- Getz, L. L. Hofmann, J. E., & Carter, C. S. 1987. Mating system and population fluctuations of the prairie vole, *Microtus ochrogaster*. *American Zoologist*, 27, 909-920.
- Cohen-Parsons, M. & Carter, C. S. 1988. Males increase progesterin receptor binding in brain of female voles. *Physiology and Behavior*, 42, 191-197.
- Witt, D. M., Carter, C. S., Carlstead, K., & Read, L. 1988. Sexual and social interactions preceding and during male-induced oestrus in prairie voles. *Physiology and Behavior*, 36, 1465-1471.
- Carter, C. S., Witt, D. M., Thompson, E. G., & Carlstead, K. 1988. Effects of hormonal, sexual, and social history on mating and pair bonding in prairie voles. *Physiology and Behavior*, 44, 691-697.
- Carter, C. S. 1988. Patterns of infant-feeding, the mother-infant interaction and stress management. In T. Field, P. McCabe, & N. Schneiderman (eds.) *Stress and Coping Across Development*, Hillsdale, N. J., Erlbaum and Associates; pp. 27-46.
- Nelson, R. J., Frank, D., Bennett, S. A., & Carter, C. S. 1989. Simulated drought influences reproduction in male prairie vole. *Physiology and Behavior*, 46, 849-852.
- Carter, C. S., Witt, D. M., Manock, S. R., Adams, K. A., Bahr, J. M., & Carlstead, K. 1989. Hormonal correlates of sexual behavior and ovulation in prairie voles. *Physiology and Behavior*, 46, 941-948.
- Witt, D. M., Carter, C. S., Chayer, R., & Adams, K. 1990. Patterns of behavior during postpartum oestrus in prairie voles, *Microtus ochrogaster*, *Animal Behaviour*, 39, 528-534.

- Witt, D. M., Carter, C. S., & Walton, D. 1990. Central and peripheral effects of oxytocin administration in prairie voles (*Microtus ochrogaster*). *Pharmacology, Biochemistry and Behavior*, 37, 63-69.
- Carter, C. S., Williams, J. R., & Witt, D. M. 1990. The biology of social bonding in a monogamous mammal. In J. Balthazart, (ed), *Hormones, Brain and Behaviour 2. Behavioural Activation in Males and Females - Social Interaction and Reproductive Endocrinology, Comparative Physiology*. Basel: S. Karger AG, 9,154-164.
- Firestone, K. B., Thompson, K. V., & Carter, C. S. 1991. Behavioral correlates of intra-female reproductive suppression in prairie voles, *Microtus ochrogaster*. *Behavioral and Neural Biology*, 1991, 55, 31-41.
- Mahalati, K., Okanoya, K., & Carter, C. S. 1991. Oxytocin inhibits male sexual behavior in prairie voles. *Pharmacology, Biochemistry and Behavior*, 39, 219-222.
- Burris, A. S., Gracely, R. H., Carter, C. S., Sherins, R. J., & Davidson, J. M. 1991. Testosterone therapy is associated with reduced tactile sensitivity in human males. *Hormones and Behavior*, 25, 195-205.
- Witt, D. M., Carter, C. S., & Insel, T. R. 1991. Oxytocin receptor binding in female prairie voles: Endogenous and exogenous oestradiol stimulation. *Journal of Neuroendocrinology*, 3, 155-161.
- Johnson, E. O., Kamilaris, T. C., Carter, C. S., Gold, P. W., & Chrousos, G. P. 1991. "Environmental stress" and reproductive success in the common marmoset (*Callithrix jacchus*). *American Journal of Primatology*, 25, 191-201.
- Carter, C. S. 1992. Oxytocin and sexual behavior. *Neuroscience and Biobehavioral Reviews*, 16, 131-144.
- Burris, A. S., Banks, S. M., Carter, C. S., Davidson, J. M., & Sherins, R. J. 1992. A long term, prospective study of the physiological and behavioral effects of hormone replacement in untreated hypogonadal men. *Journal of Andrology*, 13, 297-304.
- Williams, J. R., Catania, K., & Carter, C. S. 1992. Development of partner preferences in female prairie voles (*Microtus ochrogaster*): the role of social and sexual experience. *Hormones and Behavior*, 26, 339-349.
- Williams, J. R., Slotnick, B. M., Kirkpatrick, B., & Carter, C. S. 1992. Olfactory bulbectomy affects selective affiliation and estrus induction in female prairie voles. *Physiology and Behavior*, 52, 635-639.
- Carter, C. S. 1992. Neuroendocrinology of sexual behavior in the female. In Becker, J., Breedlove, S.M. & Crews, D. (eds), *Behavioral Endocrinology*, MIT Press/Bradford Books, Cambridge, pp. 71-95.
- Carter, C. S. 1992. Human sexual behavior. In Becker, J., Breedlove, S. M., & Crews, D. (eds), *Behavioral Endocrinology*, MIT Press/Bradford Books, Cambridge, 131-142.
- Williams, J. R., Carter, C. S., & Insel, T. R. 1992. Partner preference development in female prairie voles (*Microtus ochrogaster*) is facilitated by mating or the central infusion of oxytocin. *Annals of the New York Academy of Sciences, Oxytocin in Maternal, Sexual and Social Behavior*. 652, 487-489.
- Carter, C. S., Williams, J. R., Witt, D. M., & Insel, T. R. 1992. Oxytocin and social bonding. *Annals of the New York Academy of Sciences, Oxytocin in Maternal, Sexual and Social Behavior*. 652, 204-211.
- Insel, T.R., Winslow, J.T., Williams, J.R., Hastings, N., Shapiro, L.E. & Carter, C.S. 1993. The role of neurohypophyseal peptides in the central mediation of complex social processes - evidence from comparative studies. *Regulatory Peptides* 45, 127-131.
- Winslow, J. T., Shapiro, L., Carter, C. S., & Insel, T. R. 1993. Oxytocin and complex social behavior: Species comparisons. *Psychopharmacology Bulletin* 29, 409-414.
- Carter, C. S., & Getz, L. L. 1993. Monogamy and the prairie vole. *Scientific American*, 268, 100-106.

- Winslow, J. T., Hastings, N., Carter, C. S., Harbaugh, C. R., & Insel, T. R. 1993. A role for vasopressin in pair bonding in monogamous prairie voles. *Nature*, 365, 545-548.
- Kirkpatrick, B., Williams, J.R., Slotnick, B.M., & Carter, C.S. 1994. Olfactory bulbectomy decreases social behaviors in male prairie voles (*M. ochrogaster*). *Physiology and Behavior* 55, 885-889.
- Hnatzuk, O. C., Lisciotta, C. A., DonCarlos, L. L., Carter, C. S., & Morrell, J. I. 1994. Estrogen receptor immunoreactivity in specific brain areas of the prairie vole (*Microtus ochrogaster*) is altered by sexual receptivity and genetic sex. *Journal of Neuroendocrinology*, 6, 89-100.
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- Kirkpatrick, B., Carter, C. S., Newman, S. W., & Insel, T. R. 1994. Axon-sparing lesions of the medial amygdala decrease affiliative behaviors in the prairie vole (*Microtus ochrogaster*): Behavioral and anatomical specificity. *Behavioral Neurosciences*, 108, 501-513.
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- Hrdy, S. B., & Carter, C. S. 1995. Hormonal cocktails for two. *Natural History* 104, 34.
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- DeVries, A. C., DeVries, M. B., Taymans, S. E., & Carter, C. S. 1995. Modulation of pair bonding in female prairie voles (*Microtus ochrogaster*) by corticosterone. *Proceedings of the National Academy of Sciences*, 92, 7744-7748.
- Carter, C. S., DeVries, A.C., Taymans, S. E., Roberts, R. L., Williams, J. R., & Chrousos, G. P. 1995. Adrenal corticoid hormones and the development and expression of mammalian monogamy. In Proceedings of the First World Conference on Stress, New York Academy of Sciences. *Annals of the New York Academy of Sciences* 771, 82-91.
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- Johnson, E. O., Kamilaris, T.C., Carter, C. S., Calogero, A. E., Gold, P. W., & Chrousos, C. P. 1996. The biobehavioral consequences of psychogenic stress in a small, social primate (*Callithrix jacchus jacchus*). *Biological Psychiatry*, 40, 317-337.
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- Roberts, R. L., Zullo, A., & Carter, C. S. 1996. Perinatal steroid treatment alters alloparental affiliative in prairie voles. *Hormones and Behavior* 30, 576-582.
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