BIOGRAPHICAL SKETCH

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NAME	POSITION TITLE
Steven S. Robertson	Professor
eRA COMMONS USER NAME (credential, e.g., agency login)	

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)*

INSTITUTION AND LOCATION	DEGREE *(if applicable)*	MM/YY	FIELD OF STUDY
Brown University, Providence RI	Sc.B.	1966-1970	Physics
Cornell University, Ithaca, NY	Ph.D.	1973-1977	Devel/Physiol Psychol
Case Western Reserve University, School of Medicine, Cleveland OH	postdoc	1977-1979	Newborn Behav/Physiol

B. Positions and Honors

Positions and employment

1970-1973 Case Worker and Unit Supervisor, St. Joseph's Village (residential institution for emotionally disturbed children), Rockleigh, NJ.
1979-1988 Assistant and Associate Professor, Department Pediatrics, School of Medicine, Case Western Reserve University.
1985-1988 Adjunct Assistant and Associate Professor, Department Psychology, Case Western Reserve University.
1986-1988 Director of Research, Behavioral Pediatrics Training Program (PHS) at Case Western Reserve University.
1988-present Associate Professor and Professor, Department of Human Development, Cornell University.
1995-1997 Director of Graduate Studies, Field of Human Development, Cornell University.
1997-1999 Chair, Department of Human Development, Cornell University.
2004 Acting Associate Dean for Research, College of Human Ecology, Cornell University.
2004 Acting Associate Director, Cornell University Agricultural Experiment Station.
2008 Acting Chair, Department of Human Development, Cornell University.

Selected honors and other experience

1973-1976 NSF Graduate Fellowship.
1989 NATO International Scientific Exchange Program. Advanced Research Workshop on the Development of Sensorimotor Coordination in Infancy.
1992 NIH and CNRS joint workshop on Fetal Development.
1993 NICHD Workshop on Dynamical Systems Methods for the Study of Interactions of Genes and Environment.
1996-1997 NICHD Workshops on Fetal Behavioral Development.
1995-2003 Associate Editor, *Developmental Psychobiology*.
2002 SUNY Chancellor's Award for Excellence in Teaching.
2006 Fellow, Association for Psychological Science.

C. Selected Peer-Reviewed Publications

1. Robertson SS, Suci GJ. (1980). Event perception by infants in the early stages of language production. *Child Dev*, 51: 89-96.
2. Sosa R, Kennell JH, Klaus MH, Robertson SS, Urrutia J. (1980). The effect of a supportive companion on perinatal problems, length of labor, and mother-infant interaction. *New Engl J Med*, 303: 597-600.
3. Robertson SS, Dierker LJ, Sorokin Y, Rosen MG. (1982). Human fetal movement: Spontaneous oscillations near 1 cycle per minute. *Science*, 218: 1327-30.
4. Robertson SS. (1982). Intrinsic temporal patterning in the spontaneous movement of awake neonates. *Child Dev,* 53: 1016-21.
5. Carlo WA, Martin RJ, Versteegh FG, Goldman MD, Robertson SS, Fanaroff, AA. (1982). The effect of respiratory distress syndrome on chest wall movements and respiratory pauses in preterm infants. *Am Rev Respir Dis*, 126: 103-7.
6. Martin RJ, Robertson SS, Hopple MM. (1982). Relationship between transcutaneous and arterial oxygen tension in sick neonates during mild hyperoxemia. *Crit Care Med*, 10: 670-2.
7. Paludetto R, Robertson SS, Hack M, Shivpuri CR, Martin RJ. (1984). Transcutaneous oxygen tension during non-nutritive sucking in preterm infants. *Pediatrics*, 74: 539-42.
8. Robertson SS. (1985). Cyclic motor activity in the human fetus after mid-gestation. *Dev Psychobiol*, 18: 411-419.
9. Martin RJ, Carlo WA, Robertson SS, Day WR, Bruce EN. (1985). Biphasic response of respiratory frequency to hypercapnia in preterm infants. *Pediatr Res*, 19: 79-6.
10. Hack M, Estabrook MM, Robertson, SS. (1985). Development of sucking rhythm in preterm infants. *Early Hum Dev*, 11: 133-40.
11. Robertson SS, Dierker LJ. (1986). The development of cyclic motility in fetuses of diabetic mothers. *Dev Psychobiol*, 19: 223-34.
12. Paludetto R, Robertson SS, Martin RJ. (1986). Interaction between non-nutritive sucking and respiration in preterm infants. *Biol Neonate*, 49: 198-203.
13. Klaus MH, Kennell JH, Robertson SS, Sosa R. (1986). The effects of social support during parturition on maternal and infant morbidity. *Br Med J*, 293: 585-7.
14. Robertson SS. (1987). Human cyclic motility: fetal-newborn continuities and newborn state differences. *Dev Psychobiol*, 20: 425-42.
15. Robertson SS. (1988). Infants of diabetic mothers: Late normalization of fetal cyclic motility persists after birth. *Dev Psychobiol*, 21: 477-90.
16. Smotherman WP, Robinson SR, Robertson SS. (1988). Cyclic motor activity in the rat fetus (*Rattus norvegicus*). *J Comp Psychol*, 102: 78-82.
17. Martin RJ, Beoglos A, Miller MJ, DiFiore JM, Robertson SS, Carlo WA. (1988). The influence of increasing arterial PCO2 on transcutaneous PCO2 measurements. *Pediatrics*, 81: 684-7.
18. Robertson SS, Smotherman WP. (1990). The neural control of cyclic motor activity in the fetal rat (Rattus norvegicus). *Physiol Beh*, 47: 121-6.
19. Carlo WA, Siner B, Chatburn RL, Robertson SS, Martin RJ. (1990). Early randomized intervention with high-frequency jet ventilation in respiratory distress syndrome. *J Pediatr*, 117: 765-70.
20. Kennell JH, Klaus MH, McGrath S, Robertson SS, Hinkley C. (1991). Continuous labor support in a U.S. hospital: A randomized controlled trial. *JAMA,* 265: 2197-201.
21. Robertson SS. (1993). Probing the mechanism of oscillations in newborn motor activity. *Dev Psychol*, 29: 677-85.
22. Robertson SS. (1993). Oscillation and complexity in early infant behavior. *Child Dev*, 64: 1022-35.
23. Robinson SR, Wong CH, Robertson SS, Nathanielsz PW, Smotherman WP. (1995). Behavioral responses of the chronically instrumented sheep fetus to chemosensory stimuli presented in utero. *Beh Neurosci*, 109: 551-62.
24. Robertson SS, Johnson, SL, Bacher LF, Wood JR, Wong CH, Robinson SR, Smotherman WP, Nathanielsz PW. (1996). Contractile activity of the uterus prior to labor alters the temporal organization of spontaneous motor activity in the fetal sheep. *Dev Psychobiol*, 29: 667-83.
25. Reilly JL, Robertson SS, Smotherman WP. (1997). Variability in general activity and the expression of complex behavior in the fetal rat (*Rattus norvegicus*). *Behav Neurosci*, 111: 785-91.

26. Anderson CM, Mandell AJ, Selz KA, Terry LM, Wong CH, Robinson SR, Robertson SS, Smotherman WP. (1998). The development of nuchal atonia associated with active (REM) sleep in fetal sheep: presence of recurrent fractal organization. *Brain Res*, 787: 351-7.
27. MacLennan BD, Smotherman WP, Robertson SS. (1998). Variation in motor activity on different time scales and responsiveness to oral stimulation in the rat fetus. *Dev Psychobiol*, 33: 125-31.
28. Unno N, Wong CH, Jenkins SL, Wentworth RA, Ding X, Li C, Robertson SS, Smotherman WP, Nathanielsz PW. (1999). Fetal arterial blood pressure and heart rate during late gestation in sheep: Ontogenic changes and effects of fetal adrenalectomy. *Am J Physiol*, 45: H248-56.
29. Bacher LF, Robertson SS, Smotherman WP. (2000). An instrinsic source of behavioral regulation that influences discrete responses to cues important for the initiation of suckling. *Behav Neurosci*, 114: 594-601.
30. Bacher LF, Robertson SS. (2001). Stability of coupled fluctuations in movement and visual attention in infants. *Dev Psychobiol*, 39: 99-106.
31. Robertson SS, Bacher LF, Huntington NL. (2001). Structure and irregularity in the spontaneous behavior of young infants. *Behav Neurosci*, 115: 758-63.
32. Robertson SS, Bacher LF, Huntington, NL. (2001). The integration of body movement and attention in young infants. *Psychol Sci*, 12: 523-6.
33. Bacher LF, Smotherman WP, Robertson SS. (2001). Effects of warmth on newborn rats' motor activity and oral responsiveness to an artificial nipple. *Behav Neurosci*, 115: 675-82.
34. Robertson SS, Dierker LJ. (2003). Fetal cyclic motor activity in diabetic pregnancies: Sensitivity to maternal blood glucose. *Dev Psychobiol*, 42: 9-16.
35. Robertson SS, Guckenheimer J, Bacher LF, Masnick AM. (2004). The dynamics of infant visual foraging. *Dev Sci*, 7: 194-200.
36. Friedman AH, Watamura SE, Robertson SS. (2005). Movement-attention coupling in infancy and attention problems in childhood. *Dev Med Child Neurol*, 47: 660-5.
37. Robertson SS, Johnson SL, Masnick AM, Weiss SL. (2007). Robust coupling of body movement and gaze in young infants. *Dev Psychobiol*, 49: 208-15.
38. Watamura SE, Ahern E, Robertson SS. (2009). Cortisol patterns at home and child care: Afternoon differences and evening recovery in children attending very high quality full-day center-based child care. *J Appl Dev Psychol* , 30: 475-85.
39. Robertson SS, Johnson SL. (2009). Embodied infant attention. *Dev Sci*, 12: 297-304.
40. Watamura SE, Coe CL, Laudenslager M, Robertson SS. (2010). Child care setting affects salivary cortisol and antibody secretion in young children. *Psychoneuroendocrinology*, 2010, 35: 1156-66.
41. Robertson SS, Watamura SE, Wilbourn MP. (2012). Attentional dynamics of infant visual foraging. *Proc Natl Acad Sci USA*, 109: 11460-4.
42. Watamura SE, Devine K, Robertson SS. (2013). The dynamics of attention during free looking. *PLoS One*, 8: e56428.
43. Robertson SS. (2014). Empty-headed dynamical model of infant visual foraging. *Dev Psychobiol*, 56: 1129–33.

D. Research Support

Ongoing

NIFA (2014-2018)
Infant Predictors of Childhood Attention Problems
Role: PI
Goals: (1) Test whether our measures of infant brain activity that distinguish between focused attention and mere looking increase the sensitivity and specificity of our prediction of later attention problems, and (2) Determine whether infants at increased risk of later attention problems based on our predictor differ on core components of visual foraging, which may help explain their risk.

Completed (selected)

NIFA (2012-2015)
Effects of Iron Depletion and Repletion on Infant Memory Development
Role: Collaborator
Goals: (1) Determine if iron depletion causes reduced memory performance by altering brain function, (2) Determine if memory performance can be improved with iron supplementation and repletion, and (3) Examine the effects of the timing of iron depletion on both the severity and permanence of memory decrements.

NIFA (2011-2014)
Early Markers of Childhood Attention Problems
Role: PI
Goals: (1) Confirm the validity of an early neurobehavioral marker of later attention problems, previously discovered in our lab, in two larger cohorts of children, and (2) Increase the precision of the marker by incorporating novel measures of brain activity that we have recently developed.

NIFA (2007-2010)
Non-invasive Assessment of Mother-Infant Interactions
Role: Collaborator
Goals: Develop and validate a new, efficient, cost-effective method to assess the quantity and quality of mother-infant interaction using automated, non-invasive monitoring methods suitable for in-home use over several days.

Cornell University Institute for the Social Sciences (2008-2009)
Developmental Origins of Childhood Attention Problems
Role: PI
Goals: (1) Test our mathematical model of infant visual attention, developed to account for the visual foraging behavior of very young infants, with older infants. (2) Develop and validate a new method for measuring changes in attention that combines simultaneous recording of gaze and brain activity.

ACF/ACYF (2003-2005)
Stress Reactivity and Immune Function in Preschoolers
Role: PI, sponsor for S. Watamura
Goals: Determine the diurnal patterns in salivary cortisol and secretory IgA in preschoolers during child-care and home-care days and relate these patterns to measures of the social environment at child care and illness.

NIH/NICHD (1988-2000)
Spontaneous Motor Activity in Developing Human Infants
Role: PI
Goals: (1) Estimate the dynamic properties of the mechanism underlying cyclic motor activity (CM). (2) Determine the dynamic stability of the CM mechanism. (3) Analyze the relation between CM and the spatial distribution of visual attention. (4) Determine the role of CM in modulating attentional disengagement and re-orienting. (5) Determine the relation between CM and patterns of habituation and change detection.

NIH/NICHD (1983-1987)
Neurobehavioral Organization of the Fetus and Neonate
Role: PI
Goals: (1) Document the development of cyclic motor activity (CM) in fetuses of diabetic mothers. (2) Identify continuities and discontinuities between the fetal and neonatal periods. (3) Determine the effects of maternal glucose control on fetal and neonatal CM.