

## **CURRICULUM VITAE**

**Sandra A. Wiebe, Ph.D.**

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### **OFFICE ADDRESS**

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### **EDUCATIONAL BACKGROUND**

Southern Illinois University School of Medicine, Carbondale, Illinois  
Postdoctoral Fellow, July 2004-October 2005

University of Minnesota, Minneapolis, Minnesota  
Postdoctoral Associate, November 2003-June 2004  
Ph.D. Child Psychology (Minor: Neuroscience), 2003

University of Winnipeg, Winnipeg, Manitoba  
B.A.(Honours) Psychology, 1998

### **ACADEMIC POSITIONS**

University of Alberta, Edmonton, Alberta

Professor, Developmental Science, Department of Psychology, July 2019 - present  
Associate Chair (Research), Department of Psychology, July 2015 – June 2016; July 2018 - 2021

Associate Professor, Developmental Science, Department of Psychology, July 2015 – June 2019  
Assistant Professor, Developmental Science, Department of Psychology, July 2009 – June 2015  
Member, Neuroscience and Mental Health Institute, September 2009 – present

University of Nebraska-Lincoln, Lincoln, Nebraska

Research Assistant Professor, Psychology, November 2005 – June 2009  
Project Site Director, Developmental Cognitive Neuroscience Laboratory, November 2005 – June 2009

### **EXTRAMURAL FUNDING**

#### **Current:**

NSERC Discovery Grant: “Executive functions in the early years: Behavioural and electrophysiological approaches,” April 2023 – March 2029 (Role: PI)  
CIHR Project Grant (PIs: V. Carson & S. Wiebe): “Screen technology, parent-child interactions, and neurocognitive development in early childhood,” October 2021 – September 2025 (Role: Co-PI)

#### **Past:**

NSERC Discovery Grant: “Executive function in early childhood,” April 2016 – March 2023 (Role: PI)  
SSHRC Insight Grant (PI: T. Masuda): “Cross-cultural research on socialization processes involved in East Asian and North American children's culturally specific modes of attention,” 2017-2022 (Role: Collaborator)  
SSHRC Insight Development Grant (PI: M. Charest): “Cumulative semantic interference and lexical learning in children,” 2016-2019 (Role: Collaborator)

PolicyWise/Alberta Ministry of Health Contract: “Alberta Collaborative: An RCT of PAX Good Behaviour Game and Triple P Parenting,” January 2013 – December 2017 (Role: Co-investigator)

WCHRI Innovation Grant: “Longitudinal relations between physical activity and neurocognitive development in early childhood,” July 2015-June 2017 (Role: PI)

WCHRI Innovation Grant (PI: W. Hoglund): “Mental health in early childhood,” July 2015-June 2017 (Role: Co-investigator)

CIHR/NSERC Collaborative Health Research Project (PI: K. Adams): “Robotic interface with haptic guidance and artificial intelligence for people with disabilities,” April 2014 – March 2017 (Role: Co-investigator)

CIHR Operating Grant (PI: T. Oberlander): “Early childhood behavior: Relations to early brain structure/function and maternal mood,” April 2012 – March 2017 (Role: Co-investigator)

NSERC: “Determining the structure of executive function in the transition from preschool to middle childhood using behavioural and electrophysiological methods,” April 2011 – March 2016 (Role: PI)

PolicyWise/Palix Foundation: “Dose-response relationships between physical activity, sedentary behaviour, and neurocognitive development among children of the early years,” August 2014-December 2015 (Role: Co-PI)

NIH (2R01-MH065668-06A1; PI: K. Espy): “Executive function development in preschool children,” July 2009 – June 2014 (Role: Co-investigator)

NIH (R21-DA024769-01A1): “Prenatal tobacco exposure, self regulation, and externalizing behaviors in early childhood,” January 2009 – December 2011 (Role: PI)

Nebraska Department of Health and Human Services Cancer and Smoking Disease Research Program Grant: “Prenatal smoking, genetic risk, and infant development,” July 2008 – June 2009 (Role: PI)

NIH (Administrative Supplement to R01-DA014661, PI: K. Espy): “Prenatal Tobacco Exposure: Perinatal & Genetic Risks,” July 2006 – May 2008 (Role: Co-Investigator)

## **FELLOWSHIPS, HONOURS AND AWARDS**

“Great Supervisor” Award, Faculty of Graduate Studies and Research, University of Alberta	2018
Selected to attend Canadian Institutes of Health Research New Principal Investigators Meeting (Institutes of Genetics & Neurosciences, Mental Health, & Addiction)	2010
Selected to attend National Institute on Drug Abuse Research Training Institute (NIH)	2006
Selected to attend John Merck Fund Summer Institute on the Biology of Developmental Disabilities	2005
Nelson Butters Award, Best abstract by a postdoctoral fellow, International Neuropsychological Society	2005
SRCD Student Travel Award	2003
PGS B Fellowship, NSERC	2001-2003
PGS A Fellowship, NSERC	1999-2001
University of Minnesota Graduate School Fellowship	1998-1999
PGS A Fellowship, NSERC (declined)	1998-2000
NSERC Undergraduate Student Research Award	1996
Dr. A. R. Cragg Scholarship in Psychology	1994-1996
Governor General’s Bronze Medal, Government of Canada	1993

## PEER-REVIEWED PUBLICATIONS

(students and postdoctoral fellows under my supervision/mentorship are underlined)

- Anjomshoae, F., **Wiebe, S. A.**, & Nicoladis, E. (in press, 2024). Executive function's structure in monolingual and bilingual adults using confirmatory factor analysis. *Bilingualism: Language and Cognition*. <https://doi.org/10.1017/S136672892400021X>
- Vrantsidis, D. M., Ali, N., Khoei, M., & **Wiebe, S. A.** (in press, 2024). Bidirectional relations between parents' discipline strategies and children's inhibitory control from early to middle childhood. *Journal of Family Psychology*. <https://doi.org/10.1037/fam0001261>
- Cliff, D. P., Antczak, D., Draper, C. E., Olds, Rute Santos, T., Santos Silva, D. A., Tremblay, M. S., van Sluijs, E. M. F., Kemp, B Aadland, E., Aadland, K., Alves Bezerra, T., Burley, J., Carson, V., Christian, H.E., De Craemer, M., Downing, K., Hesketh, K. D., Jones, R. A., Kuzik, N., Lehto, R., Martins, C., Mota, J., Nathan, A., Okely, A. D., Roos, E., Sousa-Sá, E., Vale, S., **Wiebe, S.**, Janssen, I. (2024). The sleep and activity database for the early years (SADEY) study: design and methods. *Journal of Activity, Sedentary and Sleep Behaviors*. 3, 15.
- Bui, T. A., Rosenfelt, C. S., Whitlock, K. H., Leclercq, M., Weber, S., Droit, A., **Wiebe, S. A.**, Pei, J., & Bolduc, F. V. (2023). Long-term memory testing in children with typical development and neurodevelopmental disorders: Remote web-based image task feasibility study. *JMIR Pediatrics & Parenting*, 6, e39720.
- Rai, J., Predy, M., **Wiebe, S. A.**, Rinaldi, C., Zheng, Y., & Carson, V. (2023). Patterns of preschool children's screen time, parent-child interactions, and cognitive development in early childhood: A pilot study. *Pilot and Feasibility Studies*, 9, 39.
- Sakamaki, I., Tavakoli, M., **Wiebe, S. A.**, & Adams, K. (2023). Examination of effectiveness of kinaesthetic haptic feedback for motor imagery-based brain-computer interface training. *Brain-Computer Interfaces*, 10, 16-37.
- Vrantsidis, D. M., Clark, C. A. C., Volk, A., Wakschlag, L. S., Espy, K. A., & Wiebe, S. A. (2023). Exploring the interplay of dopaminergic genotype and parental behavior in relation to executive function in early childhood. *Development and Psychopathology*, 35, 1147-1158.
- Sakamaki, I., Adams, K., Tavakoli, M., & **Wiebe, S. A.** (2022). A feasibility study of eye gaze with biofeedback in a human-robot interface. *Assistive Technology*, 34, 148-156.
- Vrantsidis, D. M., Wakschlag, L. S., Espy, K. A., & **Wiebe, S. A.** (2022). Differential associations of maternal behavior to preschool boys' and girls' executive function. *Journal of Applied Developmental Psychology*, 83, 101468.
- Vrantsidis, D. M., Wuest, V., & **Wiebe, S. A.** (2022). Differential relations of parental behavior to children's early executive function as a function of child genotype: A systematic review. *Clinical Child and Family Psychology Review*, 25, 435-470.
- Zhang, Z., **Wiebe, S. A.**, Abdul Rahman, A., & Carson, V. (2022). Longitudinal associations of subjectively-measured physical activity and screen time with cognitive development in young children. *Mental Health and Physical Activity*, 22, 100447.
- Becerra Puyo, L. M., Capel, H. M., Phelan, S. K., **Wiebe, S. A.**, & Adams, K. D. (2021). Using a robotic teleoperation system for haptic exploration. *Journal of Rehabilitation and Assistive Technologies Engineering*, 8, 1-11.
- Caballero, H. S., McFall, G. P., **Wiebe, S. A.**, & Dixon, R. A. (2021). Integrating three characteristics of executive function in non-demented aging: Trajectories, classification, and biomarker predictors. *Journal of the International Neuropsychological Society*, 27, 158-171.
- Sakamaki, I., Adams, K., Tavakoli, M., & **Wiebe, S. A.** (2021). Effect of feedback and target size on eye gaze accuracy in an off-screen task. *Disability and Rehabilitation: Assistive Technology*, 16, 769-779.
- Becerra, L., Pedrozo Campos Antunes, T., Capel, H. M., **Wiebe, S. A.**, & Adams, K. D. (2020). Testing of an assistive robot system for haptic exploration of objects. *Assistive Technology*, 32, 144-152.

- Bohn, L., McFall, G. P., **Wiebe, S. A.**, & Dixon, R. A. (2020). Body Mass Index predicts cognitive aging trajectories selectively for females: Evidence from the Victoria Longitudinal Study. *Neuropsychology*, 34, 388-403.
- Nicoladis, E., & **Wiebe, S. A.** (2020). How to use a wide variety of words in telling a story with a small vocabulary: Cognitive predictors of lexical selection for simultaneous bilingual children. *Language, Cognition and Neuroscience*, 35, 330-338.
- Verswijveren, S. J. J. M., **Wiebe, S. A.**, Abdul Rahman, A., Kuzik, N., & Carson, V. (2020). Longitudinal associations of sedentary time and physical activity duration and patterns with cognitive development in early childhood. *Mental Health and Physical Activity*, 19, 100340.
- Vrantsidis, D. M., Clark, C. A. C., Chevalier, N., Espy, K. A., & **Wiebe, S. A.** (2020). Socioeconomic status and executive function in early childhood: Exploring proximal mechanisms. *Developmental Science*, 3, e12917.
- Abdul Rahman, A. & **Wiebe, S. A.** (2019). Valence matters: An electrophysiological study on how emotions influence cognitive performance in children. *Developmental Psychobiology*, 61, 290-303.
- Clark, C.A.C., Massey, S., **Wiebe, S.A.**, Espy, K.A., & Wakschlag, L.S. (2019). Does maternal responsiveness buffer prenatal tobacco exposure effects on young children's behavioral disinhibition? *Development and Psychopathology*, 31, 1285-1298.
- Jafari, N., Adams, K. D., Tavakoli, M., & Wiebe, S. (2018). Development of an assistive robotic system with virtual assistance to enhance play for children with disabilities: A preliminary study. *Journal of Medical and Biological Engineering*, 38, 33-45.
- Jafari, N., Adams, K., Tavakoli, M., **Wiebe, S.**, & Janz, H. (2018). Usability testing of a developed assistive robotic system with virtual assistance for individuals with cerebral palsy: A case study. *Disability and Rehabilitation: Assistive Technology*, 13, 517-522.
- Nicoladis, E., Hui, D., & **Wiebe, S. A.** (2018). Language dominance and cognitive flexibility in French-English bilingual children. *Frontiers in Psychology*, 9, 1697.
- Senzaki, S., **Wiebe, S. A.**, Masuda, T., & Shimizu, Y. (2018). A cross-cultural examination of selective attention in Canada and Japan: The role of social context. *Cognitive Development*, 48, 32-41.
- Abdul Rahman, A., Carroll, D. J., Espy, K. A., & **Wiebe, S. A.** (2017). Neural correlates of response inhibition in early childhood: Evidence from a go/no-go task. *Developmental Neuropsychology*, 42, 336-350.
- Carson, V., Abdul Rahman, A., & **Wiebe, S. A.** (2017). Associations of subjectively and objectively measured sedentary behavior and physical activity with cognitive development in the early years. *Mental Health and Physical Activity*, 13, 1-8.
- Elke, J. & **Wiebe, S. A.** (2017). Proactive control in early and middle childhood: An ERP study. *Developmental Cognitive Neuroscience*, 26, 28-38.
- Pazderka, H., Prinz, R. J., Heidebrecht, T., **Wiebe, S.**, Benzies, K., Hosan, N., Hoglund, W., Rinaldi, C., Easton, D., Preston, T., Tough, S., & Embry, D. D. (2017). Testing the PAX Good Behavior Game with and without school-based parenting support: Study description and practical challenges. *International Journal of Mental Health Promotion*, 19, 173-188.
- Carson, V., Hunter, S., Kuzik, N., **Wiebe S. A.**, Spence, J. C., Friedman, A., Tremblay, M. S., Slater, L., & Hinkley, T. (2016). Systematic review of physical activity and cognitive development in early childhood. *Journal of Science and Medicine in Sport*, 19, 573-578
- James, T. D., Choi, H.-J., **Wiebe, S. A.**, & Espy, K. A. (2016). The Preschool Problem Solving Study: Sample, data, and statistical methods. In K. A. Espy (Issue Ed.), *The Changing Nature of Executive Control in Preschool. Monographs of the Society for Research in Child Development*, 81(4), 30-46.
- McFall, G. P., **Wiebe, S. A.**, Vergote, D., Anstey, K. J., & Dixon, R. A. (2016). Alzheimer's genetic risk intensifies neurocognitive slowing associated with diabetes in non-demented older adults. *Alzheimer's and Dementia: Diagnosis, Assessment, & Disease Monitoring*, 1, 395-402.

- Nelson, J. M., James, T. D., Choi, H.-J., Clark, C. A. C., **Wiebe, S. A.**, & Espy, K. A. (2016). Distinguishing executive control from overlapping foundational cognitive abilities during the preschool period. In K. A. Espy (Issue Ed.), *The Changing Nature of Executive Control in Preschool. Monographs of the Society for Research in Child Development*, 81(4), 47-68.
- Sapkota, S., **Wiebe, S.A.**, Small, B.J., & Dixon, R.A. (2016). Apolipoprotein E and Clusterin can magnify effects of personality vulnerability on declarative memory performance in non-demented older adults. *International Journal of Geriatric Psychiatry*, 31, 502-509.
- Thibau, S., McFall, G. P., **Wiebe, S.A.**, Anstey, K. J., & Dixon, R. A. (2016). Genetic factors moderate everyday physical activity effects on executive functions in aging: Evidence from the Victoria Longitudinal Study. *Neuropsychology*, 30, 6-17.
- Carson, V., Kuzik, N., Hunter, S. , **Wiebe S. A.** , Spence, J. C. , Friedman, A. , Tremblay, M. S. , Slater, L., & Hinkley, T. (2015). Systematic review of sedentary behavior and cognitive development in early childhood. *Preventive Medicine*, 78, 115-122.
- McFall, G. M., **Wiebe, S. A.**, Vergote, D., Westaway, D., Jhamandas, J., Bäckman, L., & Dixon, R. A. (2015). *ApoE* and pulse pressure interactively influence level and change in the aging of episodic memory protective effects among  $\epsilon 2$  carriers. *Neuropsychology*, 29, 388-401.
- Nelson, J. M., Choi, H.-J., Clark, C. A. C., James, T. D., Fang, H., **Wiebe, S. A.**, & Espy, K. A. (2015). Sociodemographic risk and early environmental factors that contribute to resilience in executive control: A factor mixture model of 3-year-olds. *Child Neuropsychology*, 21, 354-378.
- Alvarez, L., **Wiebe, S. A.**, Adams, K., Hope, A., & Cook, A. (2014). The neurophysiology of augmentative manipulation: A method for technical implementation. *Technology and Disability*, 26, 65-77.
- Chevalier, N., James, T. D., **Wiebe, S. A.**, Nelson, J. M., & Espy, K. A. (2014). Contribution of reactive and proactive control to children's working memory performance: Insight from item recall durations in response sequence planning. *Developmental Psychology*, 50, 1999-2008.
- Chevalier, N., Kelsey, K. M., **Wiebe, S. A.**, & Espy, K. A. (2014). The temporal dynamic of preschool response inhibition: An ERP study of partial and successful inhibition. *Developmental Neuropsychology*, 39, 585-599.
- Clark, C. A. C., Nelson, J. M., Garza, J., Sheffield, T. D., **Wiebe, S. A.**, & Espy, K. A. (2014). Gaining control: Changing relations between executive control and processing speed and their relevance for mathematics achievement across the preschool period. *Frontiers in Psychology*, 5, Article 107.
- McFall, G. P., **Wiebe, S. A.**, Vergote, D., Jhamandas, J., Westaway, D., & Dixon, R. A. (2014). *IDE* (rs6583817) polymorphism and pulse pressure are independently and interactively associated with level and change in executive function in older adults. *Psychology and Aging*, 29, 418-430. Special Issue on "Genetics and Aging".
- McLean, S. P., Garza, J. P., **Wiebe, S.A.**, Dodd, M.D., Smith, K.B., Hibbing, J.R., & Espy, K.A. (2014). Applying the Flanker task to political psychology: A research note. *Political Psychology*, 35, 831-840.
- Wiebe, S. A.**, Fang, H., Johnson, C., James, K. E., & Espy, K. A. (2014). Determining the impact of prenatal tobacco exposure on self-regulation in 6-month-old infants. *Developmental Psychology*, 50, 1746-1756.
- Chevalier, N., Huber, K. L., **Wiebe, S. A.**, & Espy, K. A. (2013). Qualitative change in executive control during childhood and adulthood. *Cognition*, 128, 1-12.
- Clark, C. A. C., Sheffield, T. D., Chevalier, N., Nelson, J. M., **Wiebe, S. A.**, & Espy, K. A. (2013). Charting early trajectories of executive control with the Shape School. *Developmental Psychology*, 49, 1481-1493.
- Clark, C. A. C., Sheffield, T. D., **Wiebe, S. A.**, & Espy, K. A. (2013). Longitudinal associations between executive control and developing mathematical competence in preschool boys and girls. *Child Development*, 84, 662-677.

- McFall, G. P., Wiebe, S. A., Vergote, D., Westaway, D., Jhamandas, J., & Dixon, R. A. (2013). *IDE* (rs6583817) polymorphism and type 2 diabetes differentially modify executive function in older adults. *Neurobiology of Aging*, *34*, 2208-2216.
- Chevalier, N., Sheffield, T. D., Nelson, J. M., Clark, C. A. C., **Wiebe, S. A.**, & Espy, K. A. (2012). Underpinnings of the costs of flexibility in preschool children: The roles of inhibition and working memory. *Developmental Neuropsychology*, *37*, 99-118.
- Schoemaker, K., Bunte, T., **Wiebe, S. A.**, Espy, K. A., Dekovic, M., & Matthys, W. (2012). Executive function deficits in preschool children with ADHD and DBD. *Journal of Child Psychology and Psychiatry*, *53*, 111-119.
- Wiebe, S. A.**, Sheffield, T. D., & Espy, K. A. (2012). Separating the fish from the sharks: A longitudinal study of preschool response inhibition. *Child Development*, *83*, 1245-1261.
- Bull, R., Espy, K. A., **Wiebe, S. A.**, Sheffield, T. D., & Nelson, J. M. (2011). Using confirmatory factor analysis to understand executive control in preschool children: Sources of variation in emergent mathematics skills. *Developmental Science*, *14*, 679-692.
- Chevalier, N., **Wiebe, S. A.**, Huber, K., & Espy, K. A. (2011). Switch detection in preschoolers' cognitive flexibility. *Journal of Experimental Child Psychology*, *109*, 353-370.
- Espy, K. A., Sheffield, T. D., **Wiebe, S. A.**, Clark, C. A., & Moehr, M. (2011). Executive control and dimensions of problem behaviors in preschool children. *Journal of Child Psychology and Psychiatry*, *52*, 33-46.
- Espy, K. A., Stopp, C., **Wiebe, S. A.**, Respass, J., Fang, H., & Johnson, C. (2011). Prenatal tobacco exposure: Developmental outcome in the neonatal period. *Developmental Psychology*, *47*, 153-169.
- Wiebe, S. A.**, Sheffield, T. D., Nelson, J. M., Clark, C. A. C., Chevalier, N., & Espy, K. A. (2011). The structure of executive function in 3-year-old children. *Journal of Experimental Child Psychology*, *108*, 436-452. "Executive Function" Special Issue.
- Fang, H., Johnson, C., Chevalier, N., Stopp, C., **Wiebe, S. A.**, Wakschlag, L. S., & Espy, K. A. (2010). Using propensity score modeling to minimize the influence of confounding risks. *Nicotine & Tobacco Research*, *12*, 1211-1219.
- Wiebe, S. A.**, Lukowski, A. F., & Bauer, P. J. (2010). Sequence imitation and reaching measures of executive control: A longitudinal examination in the second year of life. *Developmental Neuropsychology*, *35*, 522-538.
- Fang, H., Espy, K. A., Rizzo, M. L., Stopp, C., **Wiebe, S. A.**, & Stroup, W. W. (2009). Pattern recognition of longitudinal trial data with nonignorable missingness: An empirical case study. *International Journal of Information Technology & Decision Making*, *8*, 491-513.
- Lukowski, A. F., **Wiebe, S. A.**, & Bauer, P. J. (2009). Going beyond the specifics: Generalization of single actions, but not temporal order information, at nine months. *Infant Behavior and Development*, *32*, 331-335.
- Wiebe, S. A.**, Espy, K. A., Stopp, C., Stewart, P., Respass, J., Jameson, T. R., Gilbert, D., & Huggenvik, J. (2009). Gene-environment interactions across development: Exploring DRD2 genotype and prenatal smoking effects on self-regulation. *Developmental Psychology*, *45*, 31-44. "Interplay of Biology and the Environment Broadly Defined" Special Section.
- Bull, R., Espy, K. A., & **Wiebe, S. A.** (2008). Short-term memory, working memory and executive functioning in preschoolers: Longitudinal predictors of mathematical achievement. *Developmental Neuropsychology*, *33*, 205-228.
- Wiebe, S. A.**, Espy, K. A., & Charak, D. (2008). Using confirmatory factor analysis to understand executive control in preschool children: I. Latent structure. *Developmental Psychology*, *44*, 575-587.
- Espy, K. A., Senn, T. E., Charak, D., Tyler, J. & **Wiebe, S. A.** (2007). Perinatal pH and neuropsychological outcomes at age 3 years in children born preterm: An exploratory study. *Developmental Neuropsychology*, *32*, 669-682.

- Wiebe, S. A.**, Cheatham, C. L., Lukowski, A. F., Haight, J. C., Muehluck, A. J., & Bauer, P. J. (2006). Infants' ERP responses to novel and familiar stimuli change over time: Implications for novelty detection and memory. *Infancy*, 9, 21-44.
- Bauer, P. J., **Wiebe, S. A.**, Carver, L. J., Lukowski, A. F., Haight, J. C., Waters, J. M., & Nelson, C. A. (2006). Electrophysiological indices of encoding and behavioral indices of recall: Examining relations and developmental change late in the first year of life. *Developmental Neuropsychology*, 29, 293-320.
- Wiebe, S. A.**, & Bauer, P. J. (2005). Interference from additional props in an elicited imitation task: When in sight, firmly in mind. *Journal of Cognition and Development*, 6, 325-364.
- Lukowski, A. F., **Wiebe, S. A.**, Haight, J. C., DeBoer, T., Nelson, C. A., & Bauer, P. J. (2005). Forming a stable memory representation in the first year of life: Why imitation is more than child's play. *Developmental Science*, 8, 279-298.
- Bauer, P. J., Van Abbema, D. L., **Wiebe, S. A.**, Cary, M. S., Phill, C., & Burch, M. M. (2004). Props, not pictures, are worth a thousand words: Verbal accessibility of early memories under different conditions of contextual support. *Applied Cognitive Psychology*, 18, 373-392.
- Bauer, P. J., **Wiebe, S. A.**, Carver, L. J., Waters, J. M., & Nelson, C. A. (2003). Developments in long-term explicit memory late in the first year of life: Behavioral and electrophysiological indices. *Psychological Science*, 14, 629-635.
- Bauer, P. J., **Wiebe, S. A.**, Waters, J. M., and Bangston, S. K. (2001). Reexposure breeds recall: Effects of experience on 9-month-olds' ordered recall. *Journal of Experimental Child Psychology*, 80, 174-200.

## INVITED PUBLICATIONS

- Wiebe, S. A.**, Clark, C. A. C., de Jong, D. M., Chevalier, N., Espy, K. A., & Wakschlag, L. (2015). Prenatal tobacco exposure and self-regulation in early childhood: Implications for developmental psychopathology. *Development and Psychopathology*, 27, 397-409. "Neural Plasticity, Sensitive Periods, and Psychopathology" Special Issue.
- Wiebe, S. A.** & McFall, G. P. (2014). Reconceptualizing executive function measurement: Implications for lifespan development. [Invited commentary on "Executive functions: Formative versus reflective measurement"]. *Measurement: Interdisciplinary Research and Perspective*, 12, 115-117.
- Wiebe, S. A.** (2014). Modeling the emergent executive: Implications for the structure and development of executive function. [Commentary on "The emergent executive: A dynamic field theory of the development of executive function"]. *Monographs of the Society for Research in Child Development*, 79(2), 104-115.
- Clark, C. A. C., Martinez, M. M., Nelson, J. M., **Wiebe, S. A.**, & Espy, K. A. (2014). Children's self-regulation and executive control: Critical for later years. In S. A. Landry & C. Cooper (Eds.), *Wellbeing: A Complete Reference Guide. Volume 1: Wellbeing in Children and Families* (pp. 7-36), New York, NY: Wiley-Blackwell.

## BOOKS

- Wiebe, S. A.** & Karbach, J., Eds. (2018). *Executive Function: Development Across the Life Span*. In M. A. Bell & K. Deater-Deckard (Series Eds.), *Frontiers of Developmental Science*. New York, NY: Routledge.

## PRESENTATIONS

*Selected Conference Presentations (past 5 years)*

- Abdul-Rahim, N., Arman Hernandez, A., Figuerola, J., & **Wiebe, S. A.** (2024, June). Relations between parents' adverse childhood experiences, parenting, and children's executive function. Poster presented at the meetings of the Canadian Society for Brain, Behaviour, and Cognitive Science, Edmonton, Alberta.

- Dorn, K., Abdul Rahman, A., Carson, V. & Wiebe, S. A. (2024, June). Evaluating the relationship between screen time and social and emotional competence in early childhood. Poster presented at the meetings of the Canadian Society for Brain, Behaviour, and Cognitive Science, Edmonton, Alberta.
- Gumnur, V. R., & Wiebe, S. A. (2024, June). Working memory is facilitated by task-relevant emotions – an ERP study. Poster presented at the meetings of the Canadian Society for Brain, Behaviour, and Cognitive Science, Edmonton, Alberta.
- Omkar, A., Wiebe, S. A., & Predy, L. K. (2024, June). The effect of distraction on executive function performance and ecological validity. Poster presented at the meetings of the Canadian Society for Brain, Behaviour, and Cognitive Science, Edmonton, Alberta.
- Predy, L., Omkar, A., & Wiebe, S. A. (2024, June). The relationship between executive functioning and recreational substance use in university students. Poster presented at the meetings of the Canadian Society for Brain, Behaviour, and Cognitive Science, Edmonton, Alberta.
- Wu, J., Predy, L., & Wiebe, S. A. (2024, June). Exploring the feasibility of the Shape School task for online research. Poster presented at the meetings of the Canadian Society for Brain, Behaviour, and Cognitive Science, Edmonton, Alberta.
- Yun, D., Tijo, J., Wiebe, S. A., Boyd, M., & Carson, V. (2024, June). Do parenting dimensions predict response inhibition in early childhood? Poster presented at the meetings of the Canadian Society for Brain, Behaviour, and Cognitive Science, Edmonton, Alberta.
- Vrantsidis, D. M., Wuest, V., & Wiebe, S. A. (2024, May). Dopamine polygenic gene  $\times$  environment interactions on executive function in children and adolescents: A systematic review. Paper presented at the meetings of the Jean Piaget Society, Toronto, Ontario.
- Gumnur, V. R., & Wiebe, S. A. (2024, April). Influence of emotional information on cognitive flexibility. Poster presented at the meetings of the Cognitive Neuroscience Society, Toronto, Ontario.
- Vrantsidis, D. M., Ali, N., Khoei, M., & Wiebe, S. A. (2023, March). Exploring bidirectional relations between parental discipline and children's inhibitory control across the transition to middle childhood. Poster presented at the meetings of the Society for Research in Child Development, Salt Lake City, Utah.
- Vrantsidis, D. M., Wuest, V., & Wiebe, S. A. (2022, July). Gene-parental behavior interactions and executive function in early childhood: A systematic review. Poster presented at the International Congress of Infant Studies, Ottawa, Ontario.
- Gumnur, V. R., & Wiebe, S. A. (2022, June). Cognitive control is modulated by emotions during emerging adulthood. Lightning talk presented at the Development 2022 Conference, Calgary, Alberta.
- Predy, L., Le, J., Rattol, A., & Wiebe, S. A. (2022, June). Parenting practices and parental anxiety predict early childhood behaviour during the COVID-19 pandemic. Poster presented at the Development 2022 Conference, Calgary, Alberta.
- Rai, J., Predy, M., Wiebe, S., Rinaldi, C., Zheng, Y., Carson, V. (2022, May) Patterns of preschool children's screen time, parent-child interactions, and cognitive development in early childhood: A pilot study. Recorded presentation at the 2022 International Society of Behavioral Nutrition and Physical Activity, Phoenix, Arizona.
- Gumnur, V. R., Phulputo, R., & Wiebe, S. A. (2021, March). Emotional stimuli enhance attention control. Poster presented at the Cognitive Neuroscience Society Virtual Meeting. <https://www.cogneurosociety.org/virtual-meeting-general-info>
- Wiebe, S. A., Rahman, A. A., Xu, L., Gumnur, V. R., Kuzik, N., & Carson, V.** (2020, July). Associations between sedentary behaviour and self-regulation in early childhood. Poster presented at the International Congress of Infant Studies Virtual Congress. <https://infantstudies.org/congress-2020>



- Verswijveren, S. J. J. M., Wiebe, S. A., Abdul Rahman, A., Kuzik, N., & Carson, V. (2020, June). Longitudinal associations of sedentary time and physical activity duration and patterns with cognitive development in early childhood. Paper presented at the International Society of Behavioral Nutrition and Physical Activity online conference. Selected for inclusion in the Early Care and Education special interest group live Question and Answer session.
- Vrantsidis, D. M., Volk, A., Anderson, E., Wakschlag, L., & Wiebe, S. A. (2019, March). Are boys more sensitive to parenting? Differential parental influences on executive function in early childhood. Poster presented at the meetings of the Society for Research in Child Development, Baltimore, Maryland.

### *Invited Presentations*

- Wiebe, S. A. (2017, November). Building executive function from the outside in: The role of parenting. Cognitive Neuroscience Seminar, Department of Psychology, University of Alberta, Edmonton, Alberta.
- Wiebe, S. A. (2016, November). Cognitive flexibility in early and middle childhood: Executive function in context. Invited Seminar, Department of Psychology, University of Cardiff, Cardiff, UK.
- Wiebe, S. A. (2016, November). Cognitive flexibility in early and middle childhood: Executive function in context. Invited Seminar, Department of Psychology, Goethe-University, Frankfurt, Germany.
- Wiebe, S. A. (2016, October). Early childhood executive function in context. Invited Seminar, Human Cognitive Neuroscience Brown Bag, University of Edinburgh, Edinburgh, UK.
- Wiebe, S. A. (2016, October). Early childhood executive function in context. Invited Seminar, Developmental Psychology Research Group, Oxford University, Oxford, UK.
- Wiebe, S. A. (2015, November). Cognitive flexibility in early and middle childhood: Insights from behaviour and ERPs. Invited Seminar, Department of Psychology, Uppsala University, Uppsala, Sweden.
- Wiebe, S. A. (2014, February). Parsing childhood self-regulation: Behavioral and electrophysiological approaches. Developmental Lunch Series, Department of Psychology, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina.
- Wiebe, S. A. (2013, June). The impact of prenatal tobacco exposure on self-regulation in infancy and early childhood. In A. Kozyrskyj (Chair), *Parent Stress and Child Health Symposium*. Department of Pediatrics, University of Alberta Faculty of Medicine & Dentistry, Edmonton, Alberta.
- Wiebe, S. A. (2012, October). Separating the fish from the sharks: Longitudinal growth and neural correlates of preschool response inhibition. Departmental Seminar, Department of Psychology, University of Alberta, Edmonton, Alberta.
- Wiebe, S. A., Clark, C. A. C., Johnson, C., Fang, H., Chevalier, N., & Espy, K. A. (2012, July). The impact of prenatal tobacco exposure on self-regulation in infancy and early childhood. In S. A. Wiebe & M. C. Moulson (Chairs), *Using Developmental Cognitive Neuroscience Methods to Understand the Impact of Risk Factors in Early Development*. Invited symposium presented at the biennial meetings of the International Society for the Study of Behavioural Development, Edmonton, Alberta.
- Wiebe, S. A. (2011, November). Understanding self-regulation in early development: Insights from low-risk and at-risk samples. Invited paper presented at the Women and Children's Health Research Institute Research Day, Edmonton, Alberta.
- Wiebe, S. A. (2011, March). Executive function in preschool children: Implications for theory and practice. Invited talk to the Division of Clinical Psychology, Department of Psychiatry, University of Alberta, Edmonton, Alberta.
- Wiebe, S. A. (2010, April). Understanding executive control in the preschool years: Behavioural and electrophysiological methods. Centre for Neuroscience Weekly Seminar, University of Alberta, Edmonton, Alberta.

Wiebe, S. A. (2006, March). Executive control in the preschool years: A latent variable approach. Research Seminar Series, Center for Brain and Cognitive Development, Birkbeck College, London, UK.

## TEACHING EXPERIENCE

### *University of Alberta*

Psych 531, Design and Analysis in Psychological Research I	2017-present
Psych 421/622, Advanced Topics in Developmental Science (Undergraduate/Graduate)	
Seminar Title: "Lifespan Development of Executive Function"	2019-present
Seminar Title: "Developmental Cognitive Neuroscience"	2012-present
Psych 323: Infant and Child Development	2012-present
Psych 523, Developmental Methods: Applications	2011-present
Psych 299, Research Opportunity in Psychology	2010-present
Mentored up to 3 junior undergraduate students per semester in directed research	
Psych 396/398, Directed Research in Psychology	2017-present
Mentored up to 3 junior undergraduate students per semester in directed research	
Psych 496/498, Directed Research in Psychology	2009-present
Mentored up to 6 senior undergraduate students per semester in directed research	
Psych 223, Lifespan Developmental Psychology	2009-2014
Neuro 450, Readings on Selected Topics in Neuroscience, course co-coordinator	2014-2016
Psych 223, Lifespan Developmental Psychology, "Executive Function" guest lecture	2012-2019
Psych 375, Cognitive Neuroscience, "Developmental Cognitive Neuroscience" and "Genetics" guest lectures	2009-2013
Psych 323, Infant and Child Development, "Brain Development" and "Self Regulation" guest lectures	2010-2013
Psych 325, Applied Developmental Psychology, "Emotion Regulation" guest lecture	2010
Psych 511, Biological Aspects of Psychiatry, "Neuroimaging" guest lecture	2010
<i>University of Nebraska-Lincoln</i>	
Psych 498/971, Developmental Cognitive Neuroscience Seminar	2008
Psych 299/499, Independent Study in Psychology	2006-2009
<i>University of Minnesota, Institute of Child Development</i>	
CPsy 4310, Special Topics in Child Development	2002, 2004
Seminar Title: "Baby Darwin: Brain Development, Cognition, and Evolution"	
CPsy 2301, Introductory Child Psychology	2000

## STUDENT MENTORSHIP

### *Mentored Student Awards*

2024	Terri Ciavardini, NSERC Undergraduate Summer Research Award (USRA)
2024	Kinew Moosewaypayo, NSERC USRA
2020	Arshdeep Rattol, NSERC USRA
2020	Viktoria Wuest, NSERC USRA
2018	Devon Heath, Roger Smith Award, Faculty of Arts, University of Alberta
2015	Emma Blakey, White Rose Doctoral Training Centre Overseas Institutional Visit, Economic and Social Research Council UK
2015	Katherine Maki, NSERC USRA
2014	Megan Pinkoski, NSERC USRA
2012	Diya Shi, Summer Studentship, Women & Children's Health Research Institute
2011	Kelly West, Roger Smith Award, Faculty of Arts, University of Alberta
2008-2009	Ashley McDonald, Undergraduate Creative Activities and Research Experience (UCARE) Award, University of Nebraska-Lincoln

2007-2009 Eu Gene Chin, UCARE Award, University of Nebraska-Lincoln  
 2007-2009 Pamela Best, UCARE Award, University of Nebraska-Lincoln  
 2006-2008 Sari Raber, UCARE Award, University of Nebraska-Lincoln

*Undergraduate Theses Supervised*

Debadrita Chowdhury (in progress, Psychology)  
 Olivia Tiessen (in progress, Psychology)  
 Nour Abdul-Rahim (2024, Psychology)  
 Kyla Dorn (2024, Psychology)  
 JingJing Wu (2024, Psychology)  
 George Mico (2023, Psychology)  
 Julie Olsen (2022, Psychology)  
 Viktoria Wuest (2022, Psychology)  
 Aizle Nyn Bernardo (2021, Psychology)  
 Jenny Le (2021, Psychology)  
 Michelle Yu (2021, Neuroscience)  
 Hana Graham (2020, Neuroscience)  
 Devon Heath (2019, Psychology)  
 Michael Warren (2017, Psychology)  
 Tieghan Baird (2016, Psychology)  
 Megan Pinkoski (2016, Psychology)  
 Auriele Volk (2016, Psychology)  
 Katherine Maki (2016, Neuroscience)  
 Shrida Sahadavan (2015, Neuroscience)  
 Tyler Harrison (2014, Neuroscience)  
 Breanna Steinke (2014, Psychology)  
 Justin Witzke (2014, Psychology)  
 Kelly West (2012, Psychology)  
 Eu Gene Chin (2009, Psychology)  
 Scott McLean (2009, Psychology)  
 Tara Steiner (2008, Psychology)

*Doctoral Theses Supervised or Co-supervised*

Farzaneh Anjomshoe (in progress, Psychology, co-supervisor Elena Nicoladis)  
 Vrushali Rao Gumnur (in progress, Psychology)  
 Zachary Meyer (in progress, Psychology)  
 Larissa Predy (in progress, Psychology)  
 Anahita Shokrkoon (2023, Psychology, co-supervisor Elena Nicoladis)  
 Daphne Vrantidis (2020, Psychology)  
 Aishah Abdul Rahman (2018, Neuroscience)

*Master's Theses Supervised or Co-supervised*

Tieghan Baird (2019, Speech-Language Pathology, co-supervisor Monique Charest)  
 Dorothea Hui (2017, Psychology)  
 Daphne Vrantidis (2016, Psychology)  
 Jonah Elke (2014, Psychology)

## PROFESSIONAL ACTIVITIES AND SERVICE

### *Department/University Service*

Graduate Scholarship Committee, Faculty of Graduate Studies and Research, University of Alberta (2018-present)

Graduate Program Committee, Department of Psychology, University of Alberta (2015-2019, 2023-present)

Associate Chair (Research), Department of Psychology, University of Alberta (2015-2016; 2018-2021)

Committee Member, Research Ethics Board 2, University of Alberta (2018-2021)

Royce Conference Organizing Committee, Department of Psychology, University of Alberta (member 2009-2012; co-chair 2013-2015; 2019-2021)

Grant Review Panel, Women and Children's Health Research Institute (Summer Studentships: 2013-2014; Innovation Grants: 2019, 2024)

Internal Grant Review Committee, Department of Psychology, University of Alberta (2012-2015)

Faculty of Arts Graduate International Travel Award Committee, University of Alberta (2012-2013)

Peer Reviewer, Grant Assist Program, University of Alberta (2010-)

External examiner, University of Alberta (various departments): 19 doctoral candidacy exams and thesis defenses (2009-)

### *Extramural Service*

Editorial Board Member, *Journal of Cognition & Development* (2022-present)

Editorial Board Member, *Developmental Science* (2014-present)

Associate Editor, *Cognitive Development* (2018-2020)

Review Panel Member, Social Sciences and Humanities Research Council of Canada (SSHRC), Ottawa, ON (2014-2016)

Review Panel Member, NIH: OppNet RFA "Basic Mechanisms of Self-regulation", Washington, DC (June 2011); Cognition and Perception panel, San Francisco, CA (February 2016)

Program Review Panel Member, Society for Research in Child Development: Biological Processes (2014); Attention, Learning, and Memory (2010-2012; 2018); Infancy: Biological, Cognitive, Motor, Perceptual Processes (2008)

Discussant, "Advances in the Developmental Neuroscience of Executive Function" panel (chair: Peter Marshall), Biennial Meetings of the Society for Research in Child Development, Baltimore, MD

Panelist, "Meet the Editors" Roundtable Discussion, Development 2018, St. Catharines, ON

Student Awards Committee, Development 2018 Conference

Local Organizing Committee, International Society for the Study of Behavioural Development (2010-2012): Exhibits Subcommittee (co-chair) and Volunteer Subcommittee (chair)

External examiner/reader: Uppsala University (November 2015), University of Calgary (September 2016), University of Western Australia (March 2017)

Ad hoc grant reviewer (2011-): Canada Research Chair Program; Canadian Foundation for Innovation, Economic and Social Research Council (UK), Michael Smith Foundation for Health Research; National Science Foundation; NSERC; Netherlands Organisation for Scientific Research

Ad hoc reviewer for over 25 peer-reviewed journals (2003-)

Textbook proposal/chapter reviews (2011-): SAGE, Wiley, Worth

### *Outreach Activities*

Research lab participated in University of Alberta Faculty of Science's "Body Science Camp", August 2022

Research lab profiled in "Unearthing the seeds of executive function", *Lab Work* column, *APA Monitor on Psychology*, April 2018

Interviewed for "How to avoid overusing negative words with your toddler", *Parents Canada*, November 22, 2017

Newspaper coverage of research on physical activity and cognitive development: *Edmonton Journal*, December 3, 2015; *Edmonton Sun*, December 2, 2015; *Huffington Post*, December 3, 2015; *Edmonton Metro*, December 2, 2015; *Edmonton Examiner*, December 9, 2015

TV coverage of research on physical activity and cognitive development: *CBC News Edmonton*, December 2, 2015; *CTV Edmonton*, November 4, 2015

Interviewed for “Dealing with the clingy toddler”, *Parents Canada*, September 16, 2015

Research showcase, TELUS World of Science, September 2014

University of Alberta-TELUS World of Science joint outreach event, “Are You Smarter Than a Preschooler” demonstration booth, May 28, 2012

Newspaper coverage of research on neural correlates of response inhibition in early childhood: *Edmonton Journal*, June 24, 2010; *Edmonton Sun*, June 24, 2010; *24 Hours Edmonton*, June 29, 2010

TV coverage of research on neural correlates of response inhibition in early childhood: *CTV News Edmonton*, June 24, 2010; *City TV Edmonton*, June 24, 2010; *Global TV Edmonton*, June 24, 2010; CBC’s *The National*, July 2010