Bradley R. King, Ph.D.

Assistant Professor Department of Health and Kinesiology College of Health University of Utah 250 S. 1850 East, Salt Lake City, UT, 84112 Email: <u>bradley.ross.king@utah.edu</u>

Google Scholar | NCBI My Bibliography | Lifespan Motor Neuroscience Lab

EDUCATION		
University of Maryland (College Park, MD, USA) Kinesiology Cognitive Motor Neuroscience Program Emphasis Area: Developmental Motor Control Advisor: Prof. Jane E. Clark	Ph.D.	2011
University of Maryland (College Park, MD, USA) Kinesiology Cognitive Motor Neuroscience Program Emphasis Area: Developmental Motor Control Advisor: Prof. Jane E. Clark	M.A.	2006
Texas Christian University (Ft. Worth, TX, USA) Kinesiology (Movement Science)	B.S.	2004
PROFESSIONAL EXPERIENC	E	
Assistant Professor Department of Health and Kinesiology College of Health University of Utah Salt Lake City, Utah, USA		2020-present
Postdoctoral Researcher Movement Control and Neuroplasticity Research Group Department of Movement Sciences KU Leuven Leuven, Belgium Supervisor: Prof. Stephan Swinnen Emphasis Area: Aging Brain and Motor Behavior		2015-20
Postdoctoral Researcher Functional Neuroimaging Unit Department of Psychology University of Montréal Montréal, Canada Supervisor: Prof. Julien Doyon Emphasis Area: Sleep and Memory in Older Adults		2011-15

2004-11

Graduate Assistant / Teaching Assistant / Lecturer Cognitive Motor Neuroscience Laboratory Department of Kinesiology University of Maryland College Park, MD, USA

network interactions. Amount: €509,000

RESEARCH FUNDING ONGOING University of Utah Research Incentive Seed Grant 2022-23 Albouy G, King BR, Coletta AM Role: Principal Investigator (Multiple PI) Title: Exercise and inhibition in deep brain regions Amount: \$27,450 Canadian Institutes of Health Research (CIHR) Operating Grant 2020-24 Doyon J, Albouy G, Benali H, Boutin A, Carrier J, Gabitov E, King BR, Lina J-M. Lungu O Role: Co-Investigator (Co-I) Title: Characterizing and comparing sleep-related consolidation and neurophysiological mechanisms for procedural and declarative memories Amount: \$1,185,000 CAN **COMPLETED** University of Utah Research Instrumentation Fund (RIF) 2021-22 Depner C, Albouy G, King BR Role: Co-Investigator (Co-I) Title: High-Density PSG/EEG System to Enable Fundamental and Clinical Translational Sleep and Circadian Research Amount: \$56,412 2019-22 Research Foundation - Flanders (FWO) Research Project Albouy G, King BR Role: Co-Principal Investigator (Co-PI) Title: Speeding up the learning process: A multimodal neuroimaging investigation into the acceleration of motor memory consolidation. Amount: €469,080 Research Foundation - Flanders (FWO) Research Project 2018-21 Swinnen SP, Edden RAE, Heise KF, King BR, Leemans A, Leunissen I, Puts N Role: Co-Principal Investigator (Co-I) Title: Inhibition and action in the aging brain: Role of GABA in brain function and

<u>Healthy Brains for Healthy Lives (HBHL) Discovery Fund for Interdisciplinary</u> 2018-20 Research (McGill University, Canada)

Doyon J, Zatorre R, Baillet S, Chakravarty M, De Villers Sidani E, Fellows L, Sharp M, Carrier J, Owen A, Albouy G, Albouy P, Coffey E, Grossman N, **King BR**, Misic B, Swinnen, S.

Role: Co-Investigator (Co-I) Title: Brain plasticity mediating improved memories through online and offline stimulation methods in healthy adults and patients with a chronic neurological condition Amount: \$1,499,850 CAN	
Research Foundation – Flanders (FWO) Bilateral Research Cooperation with Quebec Albouy G, Carrier J, Doyon J, King BR , Swinnen SP Role: Co-Principal Investigator (Co-I) Title: Optimizing motor memory in healthy older adults via feedback controlled non-invasive brain stimulation during sleep: A neuroimaging investigation. Amount: €224,000 + \$298,900 CAN	2018-20
 <u>KU Leuven Internal Funds - Competition for Small Research Equipment</u> Orban de Xivry J-J, Moors A, Nieuwboer A., Swinnen S, Feys H, Lemmens R, Verheyden G, Meesen R, Gillebert C, Heremans E, Alaerts K, Mantini D, Boisgontier M, Davare M, Albouy G, King BR Role: Co-Principal Investigator (Co-I) Title: <i>Translational upper limb platform (TULiP)</i> Amount: €87,100 	2016-18
Research Foundation – Flanders (FWO) Research Grant King BR, Orban de Xivry J-J, Swinnen S Role: Principal Investigator (PI) Title: Revealing the neural correlates of transcranial direct current stimulation- enhanced motor memory consolidation in older adults. Amount: €40,000	2016-17
Canadian Institutes of Health Research (CIHR) Operating Grant Doyon J, Albouy G, Benali H, Carrier J, Fogel S, King BR Role: Co-Investigator (Co-I) Title: <i>Sleep and motor learning consolidation and reconsolidation</i> Amount: \$678,035 CAN	2014-19
<u>Graduate Research Initiative Project (GRIP)</u> Department of Kinesiology, University of Maryland Role: Principal Investigator (PI) Title: <i>The effects of age-related improvements in state estimation on sensorimotor</i> <i>control of arm movements in school-aged children</i> . Amount: \$2,500 US	2010-11

PUBLICATIONS

- 48. Reverberi S, Dolfen N, van Roy A, Albouy G, **King BR** (2023). Sleep does not influence schemafacilitated motor memory consolidation. *PLoS One*, *18* (1): e0280591.
- 47. van Ruitenbeek P, Monteiro TS, Chalavi S, **King BR**, Cuypers K, Swinnen SP (2022). Interactions between the aging brain and motor task complexity across the lifespan: balancing brain activity resource demand and supply. *Cerebral Cortex*, doi: 10.1093/cercor/bhac514.

- 46. Veldman MP, Dolfen N, Gann MA, van Roy A, Peeters R, **King BR**, Albouy G (2022). Somatosensory targeted memory reactivation enhances motor memory consolidation via hippocampal-mediated plasticity. *Cerebral Cortex*, doi: 10.1093/cercor/bhac304.
- 45. King BR, Gann MA, Mantini D, Doyon J, Albouy G (2022). Persistence of hippocampal and striatal multivoxel patterns during awake rest after motor sequence learning. *iScience*, 25 (12), 105498.
- 44. **King BR**, Van Roy A, Temudo A, Dwenger K, Gann MA, Albouy G (2022). Does the hippocampus exhibit offline reactivation of neural activity following motor sequence learning? *Brazilian Journal of Motor Behavior*, *16* (3), 206-8.
- 43. Nicolas J, **King BR**, Levesque D, Lazzouni L, Coffey E, Swinnen SP, Doyon J, Carrier J, Albouy G (2022). Sigma oscillations protect or reinstate motor memory depending on their temporal coordination with slow waves. *eLife*, 11:e73930.
- 42. Heise KF, Rueda-Delgado L, Chalavi S, **King BR**, Monteiro TS, Edden RAE, Mantini D, Swinnen SP (2022). The interaction between endogenous GABA, functional connectivity and behavioral flexibility is critically altered with advanced age. *Communications Biology*, *5*, 426.
- 41. Monteiro TS, **King BR**, Seer C, Mantini D, Swinnen SP (2022). Network-specific differences in transient brain activity at rest are associated with age-related reductions in motor performance. *Neuroimage*, 252, 119025.
- 40. Psurek F, **King BR**, Classen J, Rumpf JJ (2021). Offline low-frequency rTMS of the primary and premotor cortices does not impact motor sequence memory consolidation despite modulation of corticospinal excitability. *Scientific Reports*, *11*, 24186.
- 39. Fang Z, Smith D, Albouy G, **King BR**, Vien C, Benali H, Carrier J, Doyon J, Fogel SM (2021). Differential effects of a nap on motor sequence learning-related functional connectivity between young and older adults. *Frontiers in Aging Neuroscience*, 13, 747358.
- 38. Gann MA, **King BR**, Dolfen N, Veldman MP, Davare M, Swinnen SP, Mantini D, Robertson EM, Albouy G (2021). Motor sequence learning and prefrontal repetitive TMS modulate multivoxel patterns in the DLPFC, hippocampus and putamen. *Scientific Reports*, *11*, 20572.
- 37. Dolfen N, Veldman MP, Gann M, Puts NAJ, Edden RAE, Mikkelsen M, von Leupoldt A, Swinnen SP, Schwabe L, Albouy G[#], King BR[#] (2021). A role for GABA in the interaction between striatal and hippocampal systems under stress. *Communications Biology*, 4, 1033.
 <u>*# King BR and Albouy G were co-senior authors*</u>
- 36. Willms S, Abel M, Karni A, Gal A, Doyon J, **King BR**, Classen J, Rumpf J-J, Buccino G, Pellicano A, Klann J, Binkofski F (2021). Motor sequence learning in patients with limb apraxia: Effects of long-term training. *Neuropsychologia*, *159*, 107921.
- 35. Gann MA, King BR, Dolfen N, Veldman MP, Chan KL, Puts NAJ, Edden RAE, Davare M, Swinnen SP, Mantini D, Robertson EM, Albouy G (2021). Hippocampal and striatal responses during motor learning are modulated by prefrontal cortex stimulation. *Neuroimage*, 237, 118158.
- 34. Veldman MP, Dolfen N, Gann M, Carrier J, **King BR**, Albouy G (2021). Somatosensory targeted memory reactivation modulates oscillatory brain activity but not motor memory consolidation. *Neuroscience*, *465*, 15, 203-218.
- 33. Dolfen N, **King BR**, Schwabe L, Gann M, Veldman MP, von Leupoldt A, Swinnen SP, Albouy G (2021). Stress modulates the balance between hippocampal and motor networks during motor memory processing. *Cerebral Cortex*, *31*, 2, 1365-82.

- 32. **King BR**, Rumpf JJ, Heise KF, Veldman MP, Peeters R, Doyon J, Classen J, Albouy G, Swinnen SP (2020). Lateralized effects of post-learning transcranial direct current stimulation on motor memory consolidation in healthy older adults: An fMRI investigation. *Neuroimage*, *223*, 117323.
- 31. King BR, Rumpf JJ, Verbaanderd E, Heise KF, Dolfen N, Sunaert S, Doyon J, Classen J, Mantini D, Puts NAJ, Edden RAE, Albouy G, Swinnen SP (2020). Baseline sensorimotor GABA levels shape neuroplastic processes induced by motor learning in older adults. *Human Brain Mapping*, 41, 13, 3680-3695.
- Monteiro TS, Zivari Adab H, Chalavi S, Gooijers J, King BR, Cuypers K, Mantini D, Swinnen SP (2020). Reduced modulation of task-related connectivity mediates age-related declines in bimanual performance. *Cerebral Cortex*, 30, 8, 4346-60.
- 29. Levin O, Weerasekera A, **King BR**, Heise KF, Sima DM, Chalavi S, Maes C, Peeters R, Sunaert S, Cuypers K, Van Huffel S, Mantini D, Himmelreich U, Swinnen SP (2019). Sensorimotor cortex neurometabolite levels as correlate of motor performance in normal aging: evidence from a ¹H-MRS study. *Neuroimage*, *202*, 116050.
- 28. King BR, Dolfen N, Gann M, Renard Z, Swinnen SP, Albouy G (2019). Schema and motor-memory consolidation. *Psychological Science*, *30* (7), 963-978.
- 27. Monteiro TS, King BR, Zivari Adab H, Mantini D, Swinnen SP (2019). Age-related changes in network flexibility and segregation at rest and during motor performance. *Neuroimage*, 194, 93-104.
- 26. Dolfen N, **King BR**, Schwabe L, Swinnen SP, Albouy G (2019). Glucocorticoid response to stress induction prior to learning modulates subsequent motor memory consolidation. *Neurobiology of Learning & Memory*, *158*, 32-41.
- 25. Gabitov E, Boutin A, Pinsard B, Censor N, Fogel SM, Albouy G, **King BR**, Benali H, Carrier J, Cohen LG, Karni A, Doyon J (2019). Susceptibility of consolidated procedural memory to interference is independent of its active task-based retrieval. *PLoS One*, *14* (1), e0210876.
- 24. King BR, van Ruitenbeek P, Leunissen I, Cuypers K, Heise K-F, Santos Monteiro T, Hermans L, Levin O, Albouy G, Mantini D, Swinnen SP (2018). Age-related declines in motor performance are associated with decreased segregation of large-scale resting state brain networks. *Cerebral Cortex, 28* (12), 4390-4402.
- 23. Hermans L, Levin O, Maes C, van Ruitenbeek P, Heise K-F, Edden RAE, Puts NAJ, Peeters R, King BR, Meesen RLJ, Leunissen I, Swinnen SP, Cuypers K (2018). GABA levels and measures of intracortical and interhemispheric excitability in healthy young and older adults: an MRS-TMS study. *Neurobiology of Aging*, 65, 168-177.
- 22. Gabitov E, Boutin A, Pinsard B, Censor N, Fogel SM, Albouy G, **King BR**, Benali H, Carrier J, Cohen LG, Karni A, Doyon J (2017). Re-stepping into the same river: Competition problem rather than a reconsolidation failure after an interfering experience in an established motor skill. *Scientific Reports*. 7 (1), 9406
- 21. Monteiro TS, Beets IAM, Boisgontier MP, Gooijers J, Pauwels L, Chalavi S, **King BR**, Albouy G, Swinnen SP (2017). Relative cortico-subcortical shift in brain activity but preserved training-induced neural modulation in older adults during bimanual motor learning. *Neurobiology of Aging*, *58*, 54-67.
- 20. **King BR**[#], Hoedlmoser K[#], Hirschauer F, Dolfen N, Albouy G (2017). Sleeping on the motor engram: The multifaceted nature of sleep-related motor memory consolidation. *Neuroscience & Biobehavioral Reviews*, 80, 1-22.

[#]King BR and Hoedlmoser K were co-first authors

- 19. Vahdat S, Albouy G, **King BR**, Lungu O, Doyon J (2017). Editorial: Online and offline modulators of motor learning. *Frontiers in Human Neuroscience*, *11*, 69.
- 18. Fogel SM, Albouy G, **King BR**, Lungu O, Vien C, Bore A, Pinsard B, Benali H, Carrier J, Doyon J (2017). Reactivation or transformation? Motor memory consolidation associated with cerebral activation time-locked to sleep spindles. *PLoS One*, *12* (4), e0174755.
- 17. Rumpf JJ, Wegscheider M, Hinselmann K, Fricke C, **King BR**, Weise D, Klann J, Binkofski F, Buccino G, Karni A, Doyon J, Classen J (2017). Enhancement of motor consolidation by post-training transcranial direct current stimulation in older people. *Neurobiology of Aging*, *49*, 1-8.
- King BR, Saucier P, Albouy G, Fogel SM, Rumpf JJ, Klann J, Buccino G, Binkofski F, Classen J, Karni A, Doyon J (2017). Cerebral activation during initial motor learning forecasts subsequent sleepfacilitated memory consolidation in older adults. *Cerebral Cortex*, 27, 1588-1601.
- 15. Albouy G, **King BR**, Schmidt C, Desseilles M, Dang-Vu T, Balteau E, Phillips C, Degueldre C, Orban P, Benali H, Peigneux P, Luxen A, Karni A, Doyon J, Maquet P, Korman M (2016). Cerebral activity associated with transient sleep-facilitated reduction in motor memory vulnerability to interference. *Scientific Reports, 6,* 34948.
- 14. Appleman, ER, Albouy G, Doyon J, Cronin-Golomb A, **King BR** (2016). Sleep quality influences subsequent motor skill acquisition. *Behavioral Neuroscience*, *130*, 290-97.
- 13. Doyon J, Albouy G, Vahdat S, **King BR** (2015). Neural correlates of motor skill acquisition and consolidation. In AW Toga (Ed.), *Brain Mapping: An Encyclopedic Reference*.
- Dan XJ[#], King BR[#], Doyon J, Chan P (2015). Motor sequence learning and consolidation in unilateral *de novo* patients with Parkinson's disease. *PLoS One*, 10(7): e0134291.
 <u>*[#]King BR and Dan XY were co-first authors*</u>
- 11. Albouy G, Fogel SM, **King BR**, Laventure S, Benali H, Karni A, Carrier J, Robertson E, Doyon J (2015). Maintaining vs. enhancing: Respective roles of the striatum and hippocampus in motor sequence memory consolidation. *Neuroimage*, *108*, 423-434.
- Fogel S, Albouy G, Vien C, Popovicci R, King BR, Hoge R, Jbabdi S, Benali H, Karni A, Maquet P, Carrier J, Doyon J (2014). fMRI and sleep correlates of the age-related impairment in motor memory consolidation. *Human Brain Mapping*, 35, 3625-3645.
- 9. King BR, Fogel S, Albouy G, Doyon J (2013). Neural correlates of the age-related changes in motor sequence learning and motor adaptation in older adults. *Frontiers in Human Neuroscience*, 7, 142.
- Albouy G, King BR, Maquet P, Doyon J (2013). Hippocampus and striatum: Dynamics and interaction during acquisition and sleep-related motor sequence memory consolidation. *Hippocampus*, 23, 11, 985-1004.
- 7. King BR, Clark JE, Oliveira MA (2012). Developmental delay of finger torque control in children with DCD. *Developmental Medicine and Child Neurology*, *54*, 932-937.
- 6. King BR, Oliveira MA, Contreras-Vidal JL, Clark JE (2012). Development of state estimation explains improvements in sensorimotor performance across childhood. *Journal of Neurophysiology*, *107*, 3040-3049.
- 5. **King BR**, Kagerer FA, Harring JR, Contreras-Vidal JL, Clark JE (2011). Multisensory adaptation of spatial-to-motor transformations in children with developmental coordination disorder. *Experimental Brain Research*, *212*, 257-265.

- 4. Rietschel JC, Goodman RN, **King BR**, Lo L-C, Contreras-Vidal JL, Hatfield BD (2011). Cerebral cortical dynamics and the quality of motor behavior during social evaluative challenge. *Psychophysiology*, 48, 479-487.
- 3. **King BR**, Harring JR, Oliveira, MA, Clark JE (2011). Statistically characterizing intra- and interindividual variability in children with developmental coordination disorder. *Research in Developmental Disabilities*, 32, 1388-1398.
- King BR, Pangelinan MM, Kagerer FA, Clark JE (2010). Improvements in proprioceptive functioning influence multisensory-motor integration in 7- to 13-year-old children. *Neuroscience Letters*, 483, 36-40.
- 1. King BR, Kagerer FA, Contreras-Vidal JL, Clark JE (2009). Evidence for multisensory spatial-tomotor transformations in aiming movements of children. *Journal of Neurophysiology*, 101: 315-322.

Preprints / Manuscripts under review

- Kim H, King BR, Verwey WB, Buchanan JJ, Wright DL (under review). Timing of transcranial direct current stimulation at M1 does not affect motor sequence learning. doi.org/10.1101/2022.08.17.504318.
- Gann MA, Dolfen N, **King BR**, Robertson EM, Albouy G (under review). Prefrontal stimulation disrupts motor memory consolidation at the micro-time scale. doi.org/10.1101/2022.11.01.514668.
- Nicolas J, Carrier J, Swinnen SP, Doyon J, Albouy G, **King BR** (under review). Electrophysiological signatures of targeted memory reactivation during sleep are not accompanied by motor performance improvements in older adults. doi.org/10.1101/2022.10.13.512106.
- Dolfen N, Reverberi S, Op de beeck H, **King BR**, Albouy G (under review). The hippocampus binds movements to their temporal position during motor sequence learning. doi.org/10.1101/2022.12.20.521084.

SELECTED PRESENTATIONS AND CONFERENCE PROCEEDINGS

- *King BR (2023, February). Reactivation of hippocampal and striatal multivoxel patterns after motor learning. Presented at the Department of Kinesiology and Sport Management at Texas A&M University. [Invited oral presentation].
- *King BR (2022, October). Reactivation of hippocampal and striatal multivoxel patterns after motor learning. Presented at the Physiological Neuroimaging Group at Oxford University. [Invited virtual oral presentation].
- **King BR** (2022, July). Investigating childhood advantages in motor learning. Presented at the Excellence of Science (EOS) Sleep and Memory Symposium. Leuven, Belgium. [Oral presentation].
- *King BR (2022, April). Sleep and memory in healthy older adults. Presented at the University of Utah Sleep / Wake Center, Salt Lake City, Utah, USA. [Invited oral presentation].
- [#]King BR (2022, February). Sleep, aging and motor memory consolidation. Presented at the University of Salzburg's Sleep Symposium. [Invited virtual oral presentation].
- *King BR (2021, February). Multimodal neuroimaging investigations into the modulation of motor learning processes in healthy older adults. Presented at the University of Maryland – Baltimore (UMB) Physical Therapy and Rehabilitation Sciences Research Seminar. [Invited virtual oral presentation].

- *King BR (2019, December). Modulating motor learning and memory consolidation in healthy older adults: Insights gained from multimodal neuroimaging investigations. Presented at the Max Planck Institute (MPI), Leipzig, Germany. [Invited oral presentation].
- *King BR (2019, August). Multimodal neuroimaging investigations into the aging brain and its influence on motor behavior. Presented at the Department of Kinesiology, University of Utah, Salt Lake City, Utah, USA. [Invited oral presentation].
- **King BR**, Rumpf JJ, Heise KF, Dolfen N, Puts NAJ, Edden RAE, Doyon J, Classen J, Albouy G, Swinnen SP (2019, June). Effects of motor learning and tDCS on sensorimotor GABA concentrations in older adults. Presented at the Organization of Human Brain Mapping, Rome, Italy. [Poster presentation].
- **King BR**, Rumpf JJ, Heise KF, Dolfen N, Puts NAJ, Edden RAE, Doyon J, Classen J, Mantini D, Albouy G, Swinnen SP (2019, May). Role of sensorimotor GABA in motor learning in older adults. Presented at the Annual Meeting of the Belgian Association of Psychological Sciences, Liege, Belgium. [Oral presentation].
- *King BR (2018, December). Motor behavior and the aging brain: A multimodal neuroimaging investigation. Presented at the Department of Kinesiology, University of Montreal, Montreal, Canada. [Oral presentation].
- *King BR (2018, May). Modulation of motor learning and memory consolidation in healthy older adults via post-learning brain stimulation and sleep: A neuroimaging investigation. Presented at the Windows into Brain Plasticity Meeting, Brussels, Belgium. [Invited oral presentation].
- ##King BR (2018, May). Neural correlates supporting the modulation of motor learning and memory consolidation in healthy older adults. Presented at the Neural Control of Movement (NCM) conference, Santa Fe, New Mexico, USA. [Oral presentation].
- **King BR**, van Ruitenbeek P, Leunissen I, Cuypers K, Heise K-F, Santos Monteiro T, Hermans L, Levin O, Albouy G, Mantini D, Swinnen SP (2017, November). Age-related decline in motor performance is associated with decreased segregation of large-scale brain networks. Presented at the 47th Society for Neuroscience (SFN) Conference, Washington, DC, USA. [Poster].
- **King BR** (2017, June). Minimizing deficits in motor memory consolidation in older adults via transcranial direct current stimulation: Behavioral and neuroimaging investigations. Presented at the 50th North American Society for the Psychology of Sport and Physical Activity (NASPSPA) conference, San Diego, California, USA. [Oral presentation].
- ##King BR (2016, July). Sleep-facilitated motor memory consolidation in older adults depends on initial encoding. Presented at the 6th International Conference on Memory (ICOM), Budapest, Hungary. [Oral presentation].
- **King BR**, Saucier P, Albouy G, Fogel S, Doyon J (2015, September). The influence of sleep/wake states on procedural memory consolidation in older adults depends on performance level during initial learning: A neuroimaging investigation. Presented at the 19th European Society for Cognitive Psychology (ESCoP), Paphos, Cyprus. [Poster].
- **King BR**, Saucier P, Albouy G, Fogel S, Doyon J (2014, November). The effects of diurnal and subsequent nocturnal sleep on motor sequence memory consolidation in older adults. Presented at the 44th Society for Neuroscience (SFN) Conference, Washington, DC, USA. [Poster].

- *King BR (2014, October). Motor sequence learning, aging and movement-related neural disorders. Presented at the Department of Kinesiology, KU Leuven, Leuven, Belgium. [Invited oral presentation].
- *King BR (2013, July). Facilitating student learning through an active learning teaching approach. Presented at the School of Exercise Science, Physical and Health Education, University of Victoria, Victoria, British Columbia, Canada. [Invited oral presentation].
- *King BR (2013, January). A mechanistic approach to lifespan motor control and learning. Presented at the Department of Kinesiology, Michigan State University, East Lansing, MI, USA. [Invited oral presentation].
- *King BR (2011, April). Development of multisensory-motor control in school-age children with and without Developmental Coordination Disorder. Presented at the Kennedy Krieger Institute, Johns Hopkins University, Baltimore, MD, USA. [Invited oral presentation].
- **King BR,** Harring JR, Oliveira MA, Clark JE (2010, June). Utilizing random coefficient models to investigate individual behavioral trajectories in school-aged children. Presented at the North American Society for the Psychology of Sport and Physical Activity Conference, Tucson, Arizona, USA. [Oral presentation].
- **King BR**, Pangelinan MM, Kagerer FA & Clark JE (2009, October). Evidence for probabilistic multisensory-motor integration in 7- to 11-year-old children. Presented at the 39th Society for Neuroscience Conference, Chicago, Illinois, USA. [Poster].
- **King BR,** Kagerer FA, Harring JR & Clark JE (2009, June). Investigating heterogeneity in children with developmental coordination disorder during sensori-motor adaptation: The use of a random coefficient model. Presented at the Developmental Coordination Disorder International Conference, Baltimore, Maryland, USA. [Poster].
- *King BR (2008, December). Children and sleep: Implications for Learning and Memory. Presented at the Developmental Coordination Disorder Parent Seminar, College Park, MD, USA. [Invited oral presentation].
- **King BR**, Pangelinan MM, Aluko T, Kagerer FA, Clark, JE (2008, June). Multisensory-motor integration in arm movements of typically-developing children. Presented at the North American Society for the Psychology of Sport and Physical Activity Conference, Niagara Falls, Ontario, Canada. [Oral presentation].
- **King BR**, Pangelinan MM, Aluko T, Kagerer FA, Clark, JE (2007, November). Multisensory-motor integration in arm movements of children. Presented at the Motor Development Research Consortium, Baltimore, MD, USA. [Oral presentation].
- **King BR**, Kagerer FA, Contreras-Vidal JL, Clark, JE (2007, August). Multisensory integration during sensorimotor de-adaptation. Presented at the Progress in Motor Control VI Conference, Santos, Brazil. [Poster].
- **King BR**, Kagerer FA, Clark JE (2005, August). Adaptation transfer from visuo-motor to auditory-motor space in children. Presented at Progress of Motor Control V, State College, PA, USA. [Poster].
- **King BR**, Kagerer FA, Clark JE (2005, June). Crossmodal adaptation in children. Presented at the North American Society for the Psychology of Sport and Physical Activity conference, St. Pete's Beach, Florida, USA. [Oral presentation].
- #Invited presentation / ##Conference symposium invitation

HONORS, AWARDS AND FELLOWSHIPS			
Research Foundation – Flanders (FWO) Individual Postdoctoral Fellowship	2018-19		
European Commission Marie Sklodowska-Curie Individual Postdoctoral Fellowship	2016-18		
Conference Abroad Travel Grant (€272; Research Foundation – Flanders (FWO))	2016		
Broaden your Horizon Travel Grant (Doctoral School of Biomedical Sciences, KU Leuven)	2016		
Sleep and Aging: Perks for Longevity symposium poster prize (University of Liege)	2015		
Fonds de Recherché Santé Québec (FRSQ) Postdoctoral Fellowship	2013-16		
Sally J. Phillips PhD Dissertation Fellowship (University of Maryland)	2011		
Ann G. Wylie PhD Dissertation Fellowship (University of Maryland)	2010		
James H. Humphrey Graduate Student Published Research Award (University of Maryland)	2009		
Outstanding Student Paper Award in Motor Development (North American Society for the Psychology of Sport and Physical Activity (NASPSPA))	2008		
David H. Clarke Research Assistant Fellowship (University of Maryland)	2006-08		
Distinguished Teaching Assistant Award (University of Maryland)	2006		
Graduated Magna cum Laude (B.Sc.; Texas Christian University)	2004		
Presidential Scholarship (Texas Christian University)	2001-04		
TEACHING			
University of Utah			
Instructor for Advanced Motor Learning	2023		
Instructor for Human Motor Development Across the Lifespan (2 terms)	2021-present		
Instructor for <i>Issues in Cognitive and Motor Neuroscience</i> (2 terms)	2021-present		
Guest Lecturer in Sleep and Circadian Physiology	2022		
Guest Lecturer in Frontiers in Neuroscience	2021		
University of Maryland, College Park:			
Guest Lecturer for Motor Development	2010		
Primary Instructor for Motor Control and Learning (3 terms)	2009-11		
Laboratory Instructor for Biomechanics of Human Motion (5 terms)	2004-06		
SUPERVISORY EXPERIENCE			
Postdoctoral Fellows			
Judith Nicolas (co-promoter); KU Leuven	2019-present		
Nina Dolfen (co-promoter); KU Leuven	2020-21		
PhD Students:			
Anke van Roy; Health and Kinesiology, University of Utah	2021-present		
Serena Reverberi (co-promoter); Biomedical Sciences; KU Leuven	2019-present		
Nina Dolfen (co-promoter); Biomedical Sciences; KU Leuven	2015-20		
<u>Master's Students:</u> Eva van Meerbeck & Lies Vandenhoudt (joint thesis; co-promoter); Movement Sciences: KUL euven	2018-20		
Jana Vandecandelaere; Biomedical Sciences; KU Leuven	2018-19		

	ae. Drauley K. Killg
Elvire Verbaanderd; Movement Sciences; KU Leuven Zenzi Renard (co-promoter); Biomedical Sciences; KU Leuven	2017-19 2016-17
Undergraduates Haley Blomquist, Undergraduate Research Opportunities Program (UROP) Scholar, University of Utah	2022-23
Jade Robinson, Summer Program for Undergraduate Research (SPUR) Scholar, University of Utah	2022
Kathryn Bee, University of Utah	2021
Alisa Curic, University of Utah	2021
29 research / undergraduate assistants from KU Leuven (Belgium), University of Montreal (Canada) and University of Maryland-College Park (US)	2007-present
<u>Supervisory Committees</u>	
Mitch Wyatt, PhD Program, Health & Kinesiology, University of Utah	2022-present
Ainsley Temudo, PhD Program, Health & Kinesiology, University of Utah	2022-present
Mindie Clark, PhD Program, Health & Kinesiology, University of Utah	2020-present
PROFESSIONAL SERVICE	
External Funding Evaluation	
National Institutes of Health (NIH) - Study Section member for Fellowships:	2023
Sensory and Motor Neurosciences, Cognition and Perception (F02B)	
Israel Science Foundation (ISF)	2022
National Science Foundation (NSF)	2022
Marie Sklodowska-Curie Individual Postdoctoral Fellowship Program (European Commission: 2 cycles)	2020-21
Funds for Scientific Research – FNRS (French-speaking research community of Belgium)	2021
<u>Editorial</u>	
PLoS One Editorial Board member	2020-present
Topic Editor for Special Issue Research Topic (Online and Offline Modulators of Motor Learning) in <i>Frontiers in Human Neuroscience</i>	2015-16
Reviewing	
Reviewer for over 25 international journals, including <i>eLife</i> , <i>Journal of</i> <i>Neuroscience</i> , <i>Cerebral Cortex</i> , <i>Neuroimage</i> , <i>Human Brain Mapping</i> , <i>Psychological Science</i> , <i>Neuroscience</i> & <i>Biobehavioral Reviews</i> , <i>Neuromodulation: Technology at the Neural Interface</i> , <i>Proceedings of the Royal</i> <i>Society Biological Sciences</i> , <i>Neurobiology of Aging</i> , <i>Neuroscience</i> , <i>Journal of</i> <i>Cognitive Neuroscience</i> , <i>Scientific Reports</i> , <i>Research in Developmental</i> <i>Disabilities</i> , <i>PLoS One</i> , <i>Science of Learning</i> , <i>Physical Therapy</i> , <i>Journal of Motor</i> <i>Learning and Development</i> , <i>Frontiers in Human Neuroscience</i> , <i>Neurorehabilitation and Neural Repair</i> , <i>Journal of Neuroengineering</i> & <i>Rehabilitation Experimental Brain Pasagrach Frontiers in Psychology Journal of</i>	2010-present

Rehabilitation, Experimental Brain Research, Frontiers in Psychology, Journal of Motor Behavior, Developmental Medicine and Child Neurology, Comprehensive Physiology, Journal of Sleep Research, Behavioural Brain Research, Research Quarterly for Exercise & Sport

Abstract Reviewer for Organization of Human Brain Mapping (OHBM) Conference 2023

Abstract and Poster Reviewer for the HHMI's Mental Health, Brain and Behavioral Science Research Day	2022
Abstract Reviewer 15 th Conference of the International Graphonomics Society (IGS)	2011
Abstract Reviewer for DCD VIII: Developmental Coordination Disorder	2009
International Conference	
Denartment / University Service	
Chair of search committee for career-line Assistant Professor in Health & Kinesiology: College of Health: University of Utah	2022
Tenure-track representative on Leadership Advisory Council; Department of Health & Kinesiology; University of Utah	2021-22
Member of search committee for tenure-track Assistant Professor in Health & Kinesiology; College of Health; University of Utah	2021-22
Admissions Committee; Neuroscience Program; University of Utah	2020-22
Student representative on search committee for Assistant Professor in Epidemiology and Biostatistics; School of Public Health; University of Maryland	2007-08
Thesis / Dissertation Evaluation	
Manon Durand Ruel; PhD in Neuroscience, École Polytechnique Federale de Lausanne (EPFL), Switzerland	2022
Alexander Pacolet and Kevin Verhaegen; Master's in Movement and Rehabilitation Sciences, KU Leuven	2020
Joke Temmerman; Master's in Biomedical Sciences; KU Leuven	2020
Veronika Haagen; Master's in Movement and Rehabilitation Sciences; KU Leuven	2019
Lore Vleugels; Master's in Movement and Rehabilitation Sciences; KU Leuven	2019
Gianluca Magagna; Master's in Kinesiology and Rehabilitation Sciences; KU Leuven	2018
Nestor Ntokos and Ilias Tselios (joint-thesis); Master's in Kinesiology and Rehabilitation Sciences; KU Leuven	2018
Jeton Bardhi; Master's in Kinesiology and Rehabilitation Sciences; KU Leuven	2017
Arthur van der Have and Vincent Van Houtte (joint-thesis); Master's in Kinesiology and Rehabilitation Sciences; KU Leuven	2017
Charissa Jakoemo; Master's in Kinesiology and Rehabilitation Sciences; KU Leuven	2016
Emilie De Laere; Master's in Biomedical Sciences; KU Leuven	2016
Community Engagement and Outreach	
Deliver interactive presentations entitled "Learning and the Sleeping Brain" to freshmen-level classes at Rowland Hall high school (10 classes of ~15 students each)	2022-23
Research was the basis for article entitled "Stimulating motor skill learning in healthy aging" published on Community Research and Development Information Service (CORDIS) platform organized by the European Commission	2019
Presented at the Leuven Brain Institute (LBI) Launch; KU Leuven	2018
Participant Appreciation Day; Hosted by the Movement Control and Neuroplasticity Research Group; KU Leuven	2017
Brain Awareness Week; Organized as part of the Developmental Motor Control Group; University of Maryland, College Park	2011

Developmental Coordination Disorder (DCD) Parent Seminar; Hosted by the	2006-11
Developmental Motor Control Group; University of Maryland, College Park	
Sports with a Twist (SWAT) Summer Camp for children with developmental motor	2008-09
Disabilities; University of Maryland, College Park	