

BIOGRAPHICAL SKETCH

NAME Key, Alexandra Fonaryova		POSITION TITLE Research Assistant Professor	
eRA COMMONS USER NAME Keysasha			
EDUCATION/TRAINING <i>(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)</i>			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	YEAR(s)	FIELD OF STUDY
Moscow State University, Russia	BA, MA	1992–1997	Psychology
Slippery Rock University, Pennsylvania	N/A	1995–1996	Psychology
University of Louisville, Kentucky	PhD	1996–2002	Experimental Psychology

A. Positions and Honors**Positions and Employment**

- 1994 – 1996 Research Assistant, Moscow State University, Cognitive Processes Lab
- 1995 – 1996 Research Assistant, Slippery Rock University, Language Development Lab
- 1996 – 1997 Research Assistant, University of Louisville, Cognition and Development Lab
- 1997 – 1998 Research Associate, University of Louisville, Cognitive Neuroscience Lab, School of Medicine
- 1997 – 1999 Research Assistant, University of Louisville, Cognition and Language Lab
- 1999 – 2002 Research Assistant, University of Louisville, Developmental Neuropsychology and Electrophysiology Lab
- 1998 – 2000 Instructor, Cognitive Psychology, University of Louisville
- 2002 – 2004 Research Associate, University of Louisville, Developmental Neuropsychology and Electrophysiology Lab/Early Childhood Research Center
- 2004 – pres Research Assistant Professor, Department of Speech and Hearing Sciences, Vanderbilt University
- 2004 – pres Director of Psychophysiology Core Services, Vanderbilt Kennedy Center for Research on Human Development, Vanderbilt University

Honors and Awards

- 1996 Paul Hager's Second Place Award for graduate research project. Fonaryova, A., Romanov, V.Ya., & Dormashev, Yu.B., Kentucky Psychological Association
- 1998 Paul Hager's First Place Award for graduate research project. Fonaryova Key, A., Pani, J., & Mervis, C., Kentucky Psychological Association
- 2002 Graduate Dean Citation for research and academic performance
- 2002 Research!Louisville Second Place Award for "Innovation in Behavioral Science." Molfese, V., Molfese, D., Fonaryova Key, A., Kelly, S., Kelley, M., Wilson, T., Cunningham, N., Ratajczak, E., Jardine, D., & Ramage, C., University of Louisville and Jewish Hospital Foundation
- 2002 Research!Louisville First Place Award for "Innovation in Behavioral Science." Molfese, D.L., Fonaryova Key, A., Kelly, S., Cunningham, N., Ramage, C., Molfese, V., Terrell, S. & Ferguson, M., University of Louisville and Jewish Hospital Foundation
- 2003 Research!Louisville Second Place Award, Ferguson, M., Straub, S., Molfese, V., Molfese, D.L., Fonaryova Key, A., Peach, K., Walker, J. & Neamon, J. University of Louisville and Jewish Hospital Foundation

B. Selected Peer-Reviewed Publications (in chronological order)

- Molfese, D. L., Molfese, V. J., Key, A., Mogdlin, A., Kelly, S., & Terrell, S. (2002). Reading and cognitive abilities longitudinal studies of brain and behavior changes in young children. *Annals of Dyslexia*, 52, 99-119.
- Molfese, D. L., Molfese, V. J., Fonaryova Key, A., & Kelly, S. (2003). Influence of environment on speech sound discrimination: Findings from a longitudinal study. *Developmental Neuropsychology*, 24, 541-559.
- Key, A., Dove, G., & Maguire, M. (2005). Linking brainwaves to the brain: An ERP primer. *Developmental Neuropsychology*, 27, 183-215.
- Fonaryova Key, A., Ferguson, M., & Molfese, D. L. (2005). ADHD and the brain: Evidence from electrophysiological studies. In D. Gozal, & D. L. Molfese (Eds.), *Attention Deficit Hyperactivity Disorder: From Genes to Animal Models to Patients* (p.359-392). Totowa, N.J.: Humana Press.
- Molfese, D. L., Fonaryova Key, A., Maguire, M., Dove, G., & Molfese, V. J. (2005). Event-related evoked potentials (ERPs) in speech perception. In D. Pisoni and R. Remez (Eds.), *Handbook of Speech Perception* (pp. 99-122). Malden, MA: Blackwell Publishing.
- Mayes, L., Molfese, D. L. & Fonaryova Key, A. (2005). Event-related potentials in cocaine-exposed children during a Stroop task. *Neurotoxicology and Teratology*, 27(6), 797-813.
- Molfese, D. L., Fonaryova Key, A., Maguire, M., Peach, K., Dove, G., Ferguson, M., Straub, S., Moseley, M. J., & Wettig, C. (2005). Coordinating a research team: Maintaining & developing a good working laboratory. In F. Leong (Ed.), *The Psychology Research Handbook: A Primer for Graduate Students and Research Assistants*, 2nd Edition. (p. 389-400) Newbury, CA: Sage Publications, Inc.
- Key, A., Molfese, D. L., & Ratajczak, E. (2006). ERP indicators of learning in adults. *Developmental Neuropsychology*, 29(2), 379-395.
- Molfese, D., Key, A., Kelly, S., Cunningham, N., Terrel, S., Ferguson, M., Molfese, V., & Bonebright, T. (2006). Dyslexic, average, and above average readers engage different and similar brain regions while reading. *Journal of Learning Disabilities*, 39(4), 352-363.
- Key, A., Ferguson, M., Molfese, D., Peach, K., Lehman, C. & Molfese V. (in press). Smoking during pregnancy affects speech discrimination ability in newborn infants. *Environmental Health Perspectives*. Available online (e-pub ahead of print).

C. Research Support

Ongoing Research Support

Key, A. (PI) 11/01/06 – 10/31/07
Vanderbilt Kennedy Center Hobbs Discovery Award
Sleep Characteristics and Cognitive Functioning in Typical Children and Children with Autism
The purpose of this project is to investigate whether sleep characteristics affect basic (e.g., perceptual) and advanced (e.g., attention, executive function) cognitive functioning in children with autism and typical development.
Role: PI

Aschner (PI) 06/01/06 – 05/31/09
Gerber Foundation Research
Neurodevelopment and Neuroimaging in Parenterally-fed Infants and Young Children.
We will compare executive functioning battery in infants exposed to high-levels of Manganese(Mn) and controls. We will also relate level of brain Mn uptake documented by fMRI and EF.
Role: Co-Investigator

Key (PI) 10/01/05 – 09/30/06
Vanderbilt Kennedy Center Marino Discovery Award
Visual Processing of Facial Features in Infant Siblings of Children With Autism
The purpose of this project is to investigate whether the pattern of decreased attention to the eye region typically reported in children with autism is present in infant siblings of children with autism who are at elevated risk for a diagnosis of autism.
Role: PI

P30 HD15052 Levitt (PI) 07/01/04 – 06/30/09
NIH/NICHHD
John F. Kennedy Cenetr for Mental Retardation
This grant provides core support for the Mental Retardation Center at Vanderbilt University.
Role: Director of Psychophysiology Services

Camarata (PI) 10/01/05 – 09/30/06
Vanderbilt Kennedy Center Hobbs Discovery Award
Psychophysiological Correlates of Language Intervention in Autism
This is a preliminary study to determine whether recast techniques will prove equally promising for expressive and receptive language abilities in children with Autism Spectrum Disorder and whether receptive language ability and treatment growth can be predicted using psychophysiological (ERP) measures.
Role: Investigator

Completed Research Support

R215R990011 09/30/99 - 09/30/04
Department of Education
Interdisciplinary Center for Research on Early Childhood Issues and Initiatives
Basic research activities conducted in areas integrating brain-behavior relationships in the development of language, cognitive, and memory abilities.
Role: Research Associate

R01 HD17860 Molfese, D. (PI) 04/01/97 - 03/31/03
NIH/NICHHD
Neonatal predictors of language performance
This project investigates changing relationships between language and cognitive development and brain development as indexed by event-related potentials.
Role: Research Assistant

R215K000023 Molfese, V. (PI) 06/01/00 - 05/31/04
Department of Education
Development of Reading and Mathematical Skills in Early Childhood: The Role of Cognitive Development
This project investigates the impact of educational approaches to teaching math and reading as mediated by the socio-cultural environment of the child.
Role: Research Associate