

Nadine Gaab, Ph.D.

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<http://www.childrenshospital.org/research/gaab>

<http://www.babymri.org>

Academic Positions

- 07/07-present **Children's Hospital Boston, Boston, MA**
Division of Developmental Medicine: Laboratories of Cognitive Neuroscience
Assistant Professor of Pediatrics
- Harvard Medical School, Boston, MA**
Assistant Professor of Pediatrics
- Harvard Graduate School of Education, Cambridge, MA**
Faculty Affiliate
- 07/09-present **Mind/Brain/Behavior interfaculty Initiative at Harvard University**
Faculty Affiliate
- 09/09-present **Brandeis University, Waltham, MA**
Department of Psychology
Adjunct Assistant Professor
- Fall 09 **Emmanuel College, Boston, MA**
Department of Psychology
Adjunct Faculty (Fall 09 Teaching: Quantitative Methods)

Education

- 08/05 - 06/07 **Massachusetts Institute of Technology (MIT), Cambridge, MA**
Department of Brain & Cognitive Sciences
Postdoctoral Associate
(Advisor: John D. E. Gabrieli, Ph.D.)
- 02/04 - 07/05 **Stanford University, Stanford, CA**
Department of Psychology and Radiology
Postdoctoral Research Fellow
(Advisors: John D. E. Gabrieli, Ph.D. and Gary H. Glover, Ph.D.)
- 06/03 – 06/04 **University of Zürich, Switzerland**
Ph.D. in "Psychology/Neuropsychology"
(Advisor: Lutz Jäncke, Ph.D.)
Ph.D. thesis title: "The Auditory cortex: perception, memory, plasticity and the influence of musicianship" (see publication list)
- Harvard Medical School, Boston, MA**
Department of Neurology: Music and Neuroimaging Laboratory at Beth Israel Deaconess Medical Center; *Visiting Research Fellow* (Advisor: Gottfried Schlaug, M.D., Ph.D.)

Education

- 05/01 - 06/03 **University of Magdeburg, Germany**
Ph.D. candidate “Cognitive Neuroscience”
(Advisor: Lutz Jäncke, Ph.D.)
- Harvard Medical School, Boston, MA**
Department of Neurology: Music and Neuroimaging Laboratory at Beth Israel Deaconess
Medical Center; *Visiting Research Fellow* (Advisor: Gottfried Schlaug, M.D., Ph.D.)
- 10/95 - 04/01 **University of Trier, Germany**
Master of Science in Psychology (main focus: clinical and experimental psychology)
Master’s thesis title: “Short-term plasticity in the human auditory cortex: an fMRI study”

Research Experience/Summer Schools

- 07/07-present **Massachusetts Institute of Technology (MIT), Cambridge, MA**
Research Affiliate
- 06/06 **Princeton University, Princeton, NJ**
John Merck Fund Summer Institute on the Biology of Developmental Disabilities
- 07/04 **University of California, Los Angeles, CA**
Graduate summer school:
Mathematics in brain imaging; Institute for Pure and Applied Mathematics (IPAM)
- 07/02 **Harvard Medical School, Boston, MA**
TMS intensive course (by Alvero Pascual-Leone, M.D.)
- 10/00 **University of Munich, Germany**
Research Assistant: DFG-project: “Time-order judgments and the auditory cortex”
- 07/99 - 08/99 **University of Düsseldorf, Germany**
Internship at the Medical School, Department of Geriatric Psychiatry;
Development of the TFDD (Alzheimer-Assessment)
- University of Trier, Germany**
Internship/Research Assistant
04/99 - 07/99 Center for Psychobiological and Psychosomatic Research”, Project: “Prevalence of
09/99 - 04/00 symptoms of PTSD in German professional firefighters”
- 09/98 - 04/99 **St. Mary’s Medical Center, San Francisco, CA**
Clinical Internship
Neurobehavioral Rehabilitation Unit (Advisor: Ronald Ruff, Ph.D.);
Research Assistant : External memory aids for patients with prospective memory deficits”
- 03/98 - 04/98 **University of Tübingen, Germany**
Internship/Research Assistant
Medical School, Department of Otolaryngology, Phoniatics and Pediatric Audiology
- 12/97 - 08/98 **University of Trier, Germany**
Internship/Research Assistant
Center for Psychobiological and Psychosomatic Research

Awards

- 02/07 **Educational Stipend** from the International Society for Magnetic Resonance in Medicine for attending the Joint Annual Meeting ISMRM-ESMRMB in Berlin, Germany.
- 04/05 **Travel Award** from the German Research Foundation (DFG) for attending “The Neurosciences and Music” conference in Leipzig, Germany.
- 04/04 **“Summa cum laude”** Highest distinction for doctoral thesis from University of Zürich/Switzerland.
- 05/03 **Travel Award** for the Organization for Human Brain Mapping's Ninth Annual Meeting in New York 2003.
- 07/02 - 02/04 **Graduate Fellowship** for the Harvard Medical School in Boston from the German National Merit Foundation (Studienstiftung des deutschen Volkes; an institution supported largely by the German government that grants competitive scholarships to approximately 0.25 percent of the German university student population).
- 05/02 **“fMRI Experience Travel Award”** from the Institute of Psychiatry, King’s College in London, UK to attend the “fMRI Experience Conference 2002” at NIH as a guest speaker.
- 06/01 - 06/02 **Graduate Fellowship** for the Harvard Medical School in Boston from the German Academic Exchange Service (DAAD).
- 07/08 **Harvard University Committee on the Biological Sciences Nominee** for the John Merck Fund (Cognitive Science) 2008.
- 10/08 Selected by the Provost as the **Harvard University's nominee** for the Dana Foundation's Program in Brain and Immuno-imaging-Track A 2008.
- 1/1/10 **Division of Developmental Medicine Investigatorship** (3 years)
Division of Developmental Medicine
Children’s Hospital Boston

Scientific Memberships

- 03/02- Present **Society for Neuroscience (SFN)**
08/01- Present **Cognitive Neuroscience Society (CNS)**
09/04- 09/10 **Association for Psychological Science (APS)**
09/05- Present **Association for Women in Science (AWIS)**
01/02- Present **Organization for Human Brain Mapping (OHBM)**
07/08- Present **International Society for Behavioral Neuroscience (ISBN)**
01/09-Present **Society for the Scientific Study of Reading (SSSR)**

Committee memberships/Board memberships

- 07/07-Present **MRI committee: Children’s Hospital Boston**
05/07-12/10 **Board member: German Academic Exchange Service Alumni Association (DAADAA)**
2008- Present **Member of the Poster committee for the Cognitive Neuroscience Society conference**
2011- present **Task force on Clinical and Research Human Imaging, Children’s Hospital Boston**
2011-present **Clinical and Translational Research Coordinating Committee**

Current Funding

- 2009-2012 **Division of Developmental Medicine Investigatorship, Children's Hospital Boston**
No specific project (Role: PI)
- 1/2011-12/2015 **National Institute of Child Health and Human Development**
1R01HD067312-01
Using Cognitive Neuroscience to Predict Dyslexia among Kindergarten Children (Role: PI with second PI John Gabrieli)
- 3/2011-1/2016 **National Institute of Child Health and Human Development**
1R01HD065762-01A1
Examining neural pre-markers of developmental dyslexia in children prior to reading onset: a longitudinal fMRI study".(Role: PI)
- 1/2008-12/2009 **Children's Hospital Boston pilot grant**
Neural correlates of rapid auditory and phonological processing in pre-reading children with and without a family risk of developmental dyslexia –an fMRI pilot study (Role: PI)
- 4/2008- 6/2011 **GRAMMY foundation**
Linking musical training, rapid auditory processing and language/reading skills: a behavioral and functional magnetic imaging study (Role: PI)
- 8/2010-8/2011 **Catalyst Pilot Grant**
Neural Pre-markers of developmental dyslexia in infants with a history of developmental dyslexia (Role: PI)
- 1/2011-12/2011 **Mind/Brain/Behavior Faculty award**
The delayed development of implicatures: inferences from fMRI (Role: PI)

Completed funding

- 1/2008- 6/2010 **William F. Milton Funds (Harvard University)**
Linking musical training, rapid auditory processing and language/reading skills in children with and without reading impairments (Role: PI)
- 1/2008-9/2010 **Charles Hood foundation**
Neural pre-markers of developmental dyslexia in children prior to reading onset (Role: PI)
- 10/2007-6/2011 **Victory foundation**
TUNEin™ to READING Efficacy: a remediation study in children with developmental dyslexia (Role: PI)
- 7/2007-7/2010 **Developmental Medicine Center, Children's Hospital Boston**
Startup resources

Pending funding

- Pending **National Institute of Child Health and Human Development**
Early sleep deprivation, food advertising, and neurohormonal control of energy balance (Role: PI for subaward; PI: Gillman)

Publications

Peer reviewed journals

1. Kovelman, I., Norton, E. S., Christodoulou, J. A., **Gaab, N.**, Triantafyllou, C., Lieberman, D. A., Lymberis, J., Wolf, M., Whitfield-Gabrieli, S., & Gabrieli, J. D. E. (in press). Brain Basis of Phonological Awareness for Spoken Language in Children and Its disruption in dyslexia. *Cerebral Cortex*.
2. You, H., **Gaab, N.**, Wei N., Cheng-Lai, A., Wang, Z., Jian, J., Song, M., Meng X., Ding, G. (in press). Neural deficits in second language reading: fMRI evidence from Chinese children with English reading impairment. *Neuroimage*.
3. Benjamin, C., Lieberman, D.A., Chang, M., Ofen, N., Gabrieli, J.D.E. & **Gaab, N.** (in press). The influence of rest period instruction on the default mode network. *Frontiers in Human Neuroscience*.
4. Raschle, N., Chang, M., & **Gaab, N.** (2010). Structural brain alterations associated with dyslexia predate reading onset. *Neuroimage*.
5. Ghosh, S.S., Kakunoori, S., Augustinack, J., Nieto-Castanon, A., Kovelman, I, **Gaab, N.**, Christodoulou, J.A., Triantafyllou, C., Gabrieli, J.D. & Fischl, B. (2010). Evaluating the Validity of Volume-Based and Surface-Based Brain Image Registration for Developmental Cognitive Neuroscience Studies in Children 4-to-11 Years of Age. *Neuroimage*, 53 (1): 85-93.
6. Raschle, N.M., Lee, M., Buechler, R., Christodoulou, J.A., Chang, M., Vakil, M., Stering, P.L. & **Gaab, N.** (2009). Making MR imaging child's play- pediatric neuroimaging protocol, guidelines and procedures. *Journal of Visualized Experiments*, 29, <http://www.jove.com/index/Details.stp?ID=1309>.
7. Schulze, K., **Gaab, N.** & Schlaug, G. (2009). Perceiving pitch absolutely: comparing absolute and relative pitch possessors in a pitch memory task. *BMC Neurosci.*, 10(1): 106-pp.
8. Christodoulou, C. & **Gaab, N.** (2008). Using and Misusing Neuroscience in Education-Related Research. *Cortex*, 45(4):555-557.
9. **Gaab, N.**, Gabrieli, J. & Glover, G. (2008). Resting in peace or noise: scanner background noise suppresses default-mode network. *Human Brain Mapping*, 29 (7): 858-867.
10. **Gaab, N.**, Gabrieli, J.D.E., Deutsch, G., Tallal, P., and Temple, E. (2007). Neural correlates of rapid auditory processing are disrupted in children with developmental dyslexia and ameliorated with training: An fMRI study. *Restorative Neuroscience and Neurology*, 25: 295-310.
11. **Gaab, N.**, Gabrieli, J. & Glover, G. (2007). Assessing the influence of scanner background noise on auditory processing- I: an fMRI study comparing three experimental designs with varying degrees of scanner background noise. *Human Brain Mapping*, 28 (8): 703-720.
12. **Gaab, N.**, Gabrieli, J. & Glover, G. (2007). Assessing the influence of scanner background noise on auditory processing- II: an fMRI study comparing auditory processing in the absence and presence of recorded scanner noise using a sparse temporal sampling design. *Human Brain Mapping*, 28 (8): 721-732.
13. **Gaab, N.**, Schulze, K., Ozdemir, E. & Schlaug, G. (2006). Neural correlates of absolute pitch differ between a blind and sighted musicians. *Neuroreport*, 17 (18): 1853-1857.

14. Tallal, P. & **Gaab, N.** (2006). Dynamic Auditory Processing, Musical Experience and Language Development. Trends in Neurosciences, 29 (7): 382-370.
15. Bermpohl, F., Pascual-Leone, A., Amedi, A., Merabet, L., Fregni, F., **Gaab, N.**, Alsop, D., Schlaug, G. & Northoff, G. (2006). Attentional modulation of emotional stimulus processing- an fMRI study using emotional expectancy. Human Brain Mapping, 27 (8): 662-677.
16. **Gaab, N.**, Gaser, C. & Schlaug, G (2006). Improvement-related functional plasticity following pitch memory training. Neuroimage, 31 (1): 255-263.
17. Bermpohl, F., Pascual-Leone, A., Amedi, A., Merabet, L., Fregni, F., **Gaab, N.**, Alsop, D., Schlaug, G. & Northoff, G. (2006). Dissociable networks for the expectancy and perception of emotional stimuli in the human brain. Neuroimage, 30(2): 588-600.
18. **Gaab, N.**, Tallal, P., Kim, H., Lakshminarayanan, K., Glover, G.H. & Gabrieli, J.D.E. (2005). Neural correlates of rapid spectro-temporal processing in musicians and nonmusicians. Ann. N.Y. Acad. Sci., 1060: 82-88.
19. Walker, M.P., Stickgold, R., Alsop, D., **Gaab, N.** & Schlaug, G. (2005). Sleep dependent motor memory plasticity in the human brain. Neuroscience, 133 (4): 911-917.
20. Overy, K. Norton, A.C., Cronin, K.T., **Gaab, N.**, Alsop, D.C., Winner, E. & Schlaug, G. (2004). Imaging melody and rhythm in young children. Neuroreport, 15(11): 1723-1726.
21. **Gaab, N.**, Paetzold, M., Walker, M.P. & Schlaug, G. (2004). The influence of sleep on auditory learning. Neuroreport, 15(4): 731-734. *See also:* <http://www.f1000biology.com/article/15094486/evaluation>
22. **Gaab, N.** & Schlaug, G. (2003). Musicians differ from nonmusicians in brain activation despite performance matching. Ann. N.Y. Acad. Sci., 999: 385-388.
23. **Gaab, N.**, Gaser, C., Zaehle, T., Jaencke, L. & Schlaug, G. (2003). Functional anatomy of pitch memory- an fMRI study with sparse temporal sampling. Neuroimage, 19(4): 1417-1426.
24. **Gaab, N.**, Keenan, J. & Schlaug, G. (2003). The effects of gender on the neural substrates of pitch memory. Journal of Cognitive Neuroscience, 15: 810-820.
25. **Gaab, N.** & Schlaug, G. (2003). The effect of musicianship on pitch memory in performance matched groups. Neuroreport, 14(18): 2291-2295.
26. Hutchinson, S., Lee, L.H., **Gaab, N.** & Schlaug, G. (2003). Cerebellar volume differences of musicians. Cerebral Cortex, 13: 943-949.
27. Jäncke, L., **Gaab, N.**, Wüstenberg, T., Scheich, H. & Heinze, H.J.(2001). Short-term functional plasticity in the human auditory cortex: an fMRI study. Cognitive Brain Research, 12: 479-485.
28. Ihl, R., Grass-Kapanke, B., Lahrem, P., Brinkmeyer, J., Fischer, S., **Gaab, N.** & Kaupmannsennecke, C. (2000). Entwicklung und Validierung eines Tests zur Früherkennung der Demenz mit Depressionsabgrenzung (TFDD). Fortschr. Neurol. Psychiat., 68: 413-422.

Ph.D. thesis

Gaab, N. (2004). The auditory cortex: perception, memory, plasticity and the influence of musicianship. Online publication (# 3391) at the University main library Zürich/ Switzerland
<http://www.dissertationen.unizh.ch/index2004.html>

Book chapters

1. Schlaug, G. & **Gaab, N.** (2003). Das musizierende Gehirn: Strukturelle und funktionelle Unterschiede zwischen Musikern und Nicht-Musikern. In: Musik und Humanität; Interdisziplinäre Grundlagen für (musikalische) Erziehung und Bildung. Eds.: Bastian, H.G. & Kreutz, G.; Schott Musik International: 120-134.

Selected conference papers, abstracts and posters

1. Zuk, J., Benjamin, C., Kenyon, B., Gaab, N. (scheduled). Examining the relationship between musical training and executive functioning skills: behavioral and fMRI studies in children and adults. Music and Neuroscience conference Edinburgh, UK, June 2011

2. Zuk, J., Andrade, P., Valeria, Andrade, O., Gardiner, M. & Gaab, N. (scheduled). Music and language: relations between perception of musical sequences, phonological processing, and literacy acquisition. Poster presented at Music, Science & Medicine: Frontiers in Biomedical Research & Clinical Applications. The New York Academy of Sciences, March, 2011.

3. Raschle, N., Zuk, J. & **Gaab, N.** (2010). Disrupted neural response to phonological processing in pre-reading children at risk for developmental dyslexia: an fMRI study. Abstract submitted for the Society for Research in child development Biennial Meeting in Montreal, Canada; April 2010

4. Benjamin, C. & **Gaab, N.** (2010). From letter strings to connected text: Using fMRI to investigate reading fluency. Poster scheduled for the "2nd Neurobiology of Language Conference", San Diego, CA; October 2010.

5. Benjamin, C. & **Gaab, N.** (scheduled). Examining fluent reading networks in adults: Implications for developmental dyslexia? Poster presentation scheduled for the Annual Meeting of the Society for Developmental and Behavioral Pediatrics, Boston, MA; September, 2010.

6. Raschle, N.M., Zuk, J. & **Gaab, N.** (2010). Neural correlates of phonological processing are disrupted in pre-readers at risk for developmental dyslexia. Poster presentation scheduled for the Annual Meeting of the Society for Developmental and Behavioral Pediatrics, Boston, MA; September, 2010.

7. Raschle, N., Chang, M., Lee, M., Buchler, R. & **Gaab, N.** (2009). Examining Behavioral and Neural Pre-Markers of Developmental Dyslexia in Children Prior to Reading Onset. Abstract presented at the 15th International Conference on Functional Mapping of the Human Brain (OHBM), San Francisco, CA; June 2009.

8. Christodoulou, J.A., Kovelman, I., Norton, E.S., King, L., DelTufo, S., **Gaab, N.**, Triantafyllou, C., Lieberman, D.A., Lymberis, J., O'Loughlin, P., Whitefield-Gabrieli, S., Wolf, M. & Gabrieli, J.D.E. (2009) Developmental dissociation between brain regions for phonological awareness. Abstract for Society for the Scientific Study of Reading, Boston, MA; June 2009.

9. Norton, E., Kovelman, I., **Gaab, N.**, Christodoulou, J., Lieberman, D.A., Lymberis, J., Whitefield-Gabrieli, S., Wolf, M., Gabrieli, J.D.E. (2009). Evidence for different neural processing of auditory language phonological awareness in children with developmental dyslexia. Abstract for Society for the Scientific Study of Reading, Boston, MA; June 2009.

Selected conference papers, abstracts and posters

10. Christodoulou, J.A., Kovelman, I., Norton, E.S., Triantafyllou, C., Lieberman, D.A., Lymberis, J., Whitfield-Gabrieli, S., Wolf, M., **Gaab, N.**, Gabrieli, J.D.E (2009). Auditory and visual phonological processing between children with and without developmental dyslexia. Abstract accepted for International Mind, Brain, and Education Society, Philadelphia, PA, May 2009.
11. Raschle, N.M., Chang, M., Lee, M., Buchler, R., & **Gaab, N.**(2009). Examining behavioral and neural pre-markers of developmental dyslexia in children prior to reading onset. Abstract accepted for the Dr. M. Judah Folkman Research Day at Children’s Hospital Boston, Boston, MA; May 2009.
12. Chang, M, Lieberman, D., Ofen, N. & **Gaab, N** (2009). The influence of rest period instructions on the default mode of brain function. Abstract accepted for the Dr. M. Judah Folkman Research Day at Children’s Hospital Boston, Boston, MA; May 2009.
13. Dabek, R.,Vakil, M.,Benjamin, C., Chang, M., Lee, M. & **Gaab, N.** (2009). Learning to Read by Learning to Sing. Abstract presented at the Boston Undergraduate Research Symposium, Cambridge, MA; April 2009
14. North, K., Chang, M.,Vaki, M. Lee, M., Raschle, N. & **Gaab, N.** (2009). Assessing the Influence of Musical Training on Reading Measurements and General Cognitive Abilities. Abstract presented at the Boston Undergraduate Research Symposium, Cambridge, MA; April 2009.
15. Norton, E., Kovelman, I., **Gaab, N.** Christodoulou, J., Lieberman, D.A., Lymberis, J., Whitfield-Gabrieli, S., Gabrieli, J.D.E (2009). Neural correlates of auditory phonological processing in typical reading development and dyslexia. Poster at the “Sixteenth Annual Meeting of the Cognitive Neuroscience Society”, San Francisco, CA; April 2009.
16. Lieberman, D.A., Kim, H., Lakshminarayanan, K., Glover, G.H., Tallal, P., Gabrieli, J.D.E., **Gaab, N.** (2008). Specificity within auditory cortices for nonlinguistic auditory timing patterns related to speech processing. Poster at the “Fifteenth Annual Meeting of the Cognitive Neuroscience Society”, San Francisco, CA; April 2008.
17. **Gaab, N.**, Ofen, N., Gabrieli, J.D.E. & Glover, G.H. (2007). Resting in peace, noise or with instructions: the influence of scanner background noise on the default mode of brain functions. Poster presented at the meeting of the International Society for Magnetic Resonance Imaging in Medicine, Berlin, Germany, May 2007.
18. **Gaab, N.**, Ofen, N. & Gabrieli, J.D.E. (2007). Resting with instructions: Actively ignoring or attending to scanner background noise during rest periods can alter default mode of brain functions. Poster presented at the “Fourteenth Annual Meeting of the Cognitive Neuroscience Society”, New York City, NY, May 2007.
19. **Gaab, N.**, Gabrieli, J.D.E & Glover, G.H (2006). Resting in peace or noise- scanner background noise suppresses default mode of brain function. Poster presented at the 11th International Conference on Functional Mapping of the Human Brain, Florence, June 2006.
20. BERPPOHL, F., Pascual-Leone, A., Amedi, A., Merabet, L., Fregni, F., **Gaab, N.**, Wrase, J., Bauer, M., Heinz, A., Schlaug, G. & Northoff, G. (2006). The medial prefrontal cortex is associated with the temperament trait of ‘novelty seeking’: evidence from fMRI. Poster presented at the “Thirteenth Annual Meeting of the Cognitive Neuroscience Society”, San Francisco, CA; April 2006.

Selected conference papers, abstracts and posters

21. **Gaab, N.**, Tallal, P., Kim, H., Archie, J.J., Lakshminarayanan, K., Glover, G.H. & Gabrieli, J.D.E. (2005). Musical experience shapes auditory rapid spectro-temporal processing in females. Poster presented at the 11th International Conference on Functional Mapping of the Human Brain, Toronto, Canada June 2005.
22. **Gaab, N.**, Tallal, P., Kim, H., Archie, J.J., Lakshminarayanan, K., Glover, G.H. & Gabrieli, J.D.E. (2005). Neural correlates of rapid temporospectral processing in musicians and non-musicians. Poster presented at the “The Neurosciences and Music” Conference, Leipzig, Germany May 2005.
23. **Gaab, N.**, Kim, H., Lakshminarayanan, K., Tallal, P. & Gabrieli, J.D.E. (2005). Differences in musicians and non-musicians in rapid auditory temporospectral processing of non-linguistic and linguistic stimuli. Poster presented at the “The Neurosciences and Music” Conference, Leipzig, Germany May 2005.
24. **Gaab, N.**, Tallal, P., Kim, H., Archie, J.J., Lakshminarayanan, K., Glover, G.H. & Gabrieli, J.D.E. (2005). Neural correlates of auditory spectro-temporal processing. Poster presented at the “Twelfth Annual Meeting of the Cognitive Neuroscience Society”, New York City, NY April 2005.
25. Bermpohl, F., **Gaab, N.**, Fregni, F., Merabet, L., Schlaug, G., Northoff, G. & Pascual-Leone, A. (2004). Attentional modulation of emotional processing – an fMRI study. Poster presented at the “Society for Neuroscience 34th Annual meeting”, San Diego, CA October 2004.
26. Bermpohl, F., Northoff, G., **Gaab, N.**, Fregni, F., Merabet, L., Schlaug, G. & Pascual-Leone, A. (2004). Neural correlates for emotional expectancy. Poster presented at the 10th International Conference on Functional Mapping of the Human Brain, Budapest, Hungary June 2004.
27. **Gaab, N.**, Ozdemir, E., Overy, K. & Schlaug, G. (2004). Shared neural substrates for singing, speaking and humming. Poster presented at “Eleventh Annual Meeting of the Cognitive Neuroscience Society”, San Francisco, CA April 2004.
28. **Gaab, N.**, Schulze, K., Ozdemir, E. & Schlaug, G. (2004). Extensive activation of occipital and parietal cortex in a blind absolute pitch musician. Poster presented at “Eleventh Annual Meeting of the Cognitive Neuroscience Society”, San Francisco, CA April 2004.
29. **Gaab, N.**, Walker, M.P. & Schlaug, G. (2003). The influence of sleep on auditory learning- a behavioral study. Poster presented at: “Society for Neuroscience 33rd Annual meeting”, New Orleans, LA November 2003.
30. **Gaab, N.** & Schlaug, G. (2003). Performance related changes in the auditory cortex- an fMRI training study. Poster presented at the “Auditory Cortex” Conference in September 2003, Magdeburg, Germany.
31. **Gaab, N.**, Gaser, C. & Schlaug, G. (2003). Developing Musical Expertise -an fMRI training study comparing trained non-musicians with musicians. Poster presented at the 9th International Conference on Functional Mapping of the Human Brain, New York City, NY June 2003.
32. Schulze, K., **Gaab, N.**, Overy, K. & Schlaug, G. (2003). A voxel-based morphometric study of subjects with congenital amusia. Poster presented at the 9th International Conference on Functional Mapping of the Human Brain, New York City, NY June 2003.
33. Overy, K., Norton, A., Alsop, D., Cronin, K., **Gaab, N.**, Winner, E. & Schlaug, G. (2003). The Kid’s Got Rhythm: An fMRI study of Rhythm Processing in Children ages Five to Seven. Poster presented at the 9th International Conference on Functional Mapping of the Human Brain, New York City, NY June 2003.

Selected conference papers, abstracts and posters

34. **Gaab, N.**, Gaser, C. & Schlaug, G. (2002). Professional musicians and musical novices – an fMRI training study. Poster presented at: “Tenth Annual Meeting of the Cognitive Neuroscience Society”, New York City, NY March/April 2003.
35. Meidell, K.L., **Gaab, N.**, Halpern, A. & Schlaug, G. (2002). Motor Imagery in Pianists. Poster presented at: “Society for Neuroscience 32nd Annual meeting”, Orlando, FL November 2002.
36. **Gaab, N.**, Gaser, C., Chen, Y. & Schlaug, G. (2002). The functional anatomy of auditory learning-an fMRI study with sparse temporal sampling. Poster presented at: “Society for Neuroscience 32nd Annual meeting”, Orlando, FL November 2002.
37. Schlaug, G., **Gaab, N.** & Hutchinson, S. (2002). The musical cerebellum: gender and musicianship effects. Poster presented at the “The Neurosciences and Music: Mutual interactions and implications on developmental functions”, Venice, Italy October 2002.
38. **Gaab, N.** & Schlaug, G. (2002). Musicians differ from non-musicians in brain activation despite similar performance. Poster presented at the “The Neurosciences and Music: Mutual interactions and implications on developmental functions” in Venice, Italy October 2002.
39. **Gaab, N.**, Gaser, C., Chen, Y. & Schlaug, G. (2002). Gender interacts with Neural Correlates of Musical Functions. Poster presented at the 8th International Conference on Functional Mapping of the Human Brain, Sendai, Japan June 2002.
40. **Gaab, N.**, Zähle, T., Gaser, C., Chen, Y. & Schlaug, G. (2002). The role of posterior perisylvian regions in pitch memory: an fMRI-study with sparse temporal sampling. Poster presented at: “Ninth Annual Meeting of the Cognitive Neuroscience Society”, San Francisco, CA, April 2002.

Selected invited oral presentations/conference talks

- 1 . **Gaab, N** (scheduled for 2011). Developmental Dyslexia. Grand Rounds. Children’s Hospital Boston, September 2011.
- 2 . **Gaab, N** (scheduled for 2011). Structural and functional correlates of reading and reading related processes examined before reading onset and after language/reading remediation. Invited speaker for International Society for Mind, Brain and Education, San Diego, CA, June 2011.
- 3 . **Gaab, N** (scheduled for 2011). Current fMRI methods with children. Music and Neuroscience conference Edinburgh, UK, June 2011
4. **Gaab, N.** 2011). Music and Dyslexia. Conference: Music, Science & Medicine: Frontiers in Biomedical Research & Clinical Applications. Pre-conference workshop at Rutgers University, keynote speaker .
5. **Gaab, N.** (2011). Oral presentation for Harvard Mind, Brain, and Behavior Student-Faculty Tea. Harvard University, Cambridge, April 2011.
6. **Gaab, N.** (2011). Influences of musical training on language processing and executive functioning in typical and atypical developing children. Oral presentation for: Crossing the Corpus Callosum II Neuroscience, Healing & Music: A symposium hosted by Longwood Symphony Orchestra and The Lab at Harvard University; Boston, MA; January 2011.

Selected invited oral presentations/conference talks

7. **Gaab, N.** (scheduled for 2011). Neuroeducation: Does neuroimaging in infancy and young childhood add to the predictive value of psychometric tests? Oral presentation at the Harvard University MBB Chalk Talk Series, Cambridge, MA; February 2011.
8. **Gaab, N.** (2010). Research in the Gaab laboratory. Oral presentation for the Scientific Advisory Council for the Division of Developmental Medicine, Boston, MA, November 2010.
9. **Gaab, N.** (2010). Update from teh Gaab Lab: Neural pre-markers of developmental dyslexia before reading osnet? Oral presentation at the Developmental Medicine Center Meeting, Boston, MA, November 2010.
10. Benjamin, C., Lee, M., Steinhorn, R. & **Gaab, N.** (2010). What's the story? An fMRI investigation of fluent reading. Oral presentation for the "Society for Neuroscience 40th Annual meeting", San Diego, CA November 2010.
11. **Gaab, N.** (2010). Brain correlates of early reading development and developmental dyslexia: challenges, new directions and the role of auditory processing. Invited oral presentationat University of Masseurhusses Amherst, Amherst, MA, October, 2010.
12. Raschle, N.M., Stering, P.L. & **Gaab, N.** (2010). Disruptive neural response during rapid auditory processing in pre-readers at risk for dyslexia – an fMRI study. Oral presentation for the Annual Meeting of the Society for Developmental and Behavioral Pediatrics, Boston, MA; September, 2010.
13. **Gaab, N.** (2010). Neural correlates of reading related processes examined with fMRI before reading onset and after language/reading remediation. Invited oral presentation for 'The Dyslexia Foundation' in Cong, Ireland.
14. **Gaab, N.** (2010). Brain correlates of early reading development and developmental dyslexia: challenges, new directions and the role of auditory processing. Special Seminar at University of Miami, Coral Gables, FL, February, 2010.
15. **Gaab, N.** (2009). Neural pre-markers of developmental dyslexia in the pre-reading brain. Oral presentation at the Boston area cognitive development workshop (COGDEV), Cambridge, MA; November 2009.
16. Raschle, N., Chang, M. & **Gaab, N.** (2009). Gray matter changes in pre-reading children at risk for dyslexia: Structural pre-markers of dyslexia? Oral presentation at the "Society for Neuroscience 39th Annual Meeting", Chicago, IL; October 2009. (**Abstract also selected for Press Book submission**).
17. **Gaab, N.** (2009). Neural pre-markers of developmental dyslexia in the pre-reading brain. Invited oral presentation at Haskins Laboratories, New Haven, CT, October 2009.
18. **Gaab, N.** (2009). Brain correlates of reading development and developmental dyslexia: challenges, new directions and the role of auditory processing. Invited oral presentation at the University of Konstanz, Germany, July 2009.
19. **Gaab, N.** (2009). Brain correlates of reading development and developmental dyslexia: challenges, new directions and the role of auditory processing. Invited oral presentation at the Freie University of Berlin, Germany, August 2009.
20. **Gaab, N.**, Chang, M., Lee, M., Buechler, R. & Raschle, N. (2009). Neural pre-markers of developmental dyslexia in the pre-reading brain: an fMRI investigation. Abstract for Society for the Scientific Study of Reading, Boston, MA; June 2009.

Selected invited oral presentations/conference talks

21. **Gaab, N.** (2009). Linking dynamic auditory processing, musical experience and language/reading development and impairment. Invited oral presentation at Babes-Bolyai University, Department of Psychology, Cluj-Napoca, Romania, June 2009.
22. **Gaab, N.** (2009). Linking music, language and reading. Invited oral presentation at the Massachusetts Arts Education Collaborative (MAEC) School Leadership and Arts Education Symposium, May 2009.
23. **Gaab, N.** (2009). Brain correlates of reading development and developmental dyslexia: challenges, new directions and the role of auditory processing. Invited oral presentation at the Clinical Brain Science Collaborative Seminar; Children's Hospital Boston, May 2009.
24. **Gaab, N.** (2009). Linking dynamic auditory processing, musical experience and language/reading development and impairment. Invited oral presentation at Dartmouth College, Developmental Brown Bag; Hanover, NH, April 2009 .
25. **Gaab, N.** (2009). Linking dynamic auditory processing, musical experience and language/reading development and impairment. Invited oral presentation at Boston University, Department of Psychology; Boston, MA, March 2009.
26. **Gaab, N.** (2009). Pediatric neuroimaging: challenges and solutions. Oral presentation at National Institute of Mental Health (NIMH) at Karen Berman's laboratory, Bethesda, MD; February 2009.
27. **Gaab, N.** (2009). Linking dynamic auditory processing, musical experience and language/reading development and impairment. Invited oral presentation at National Institute on deafness and other communication disorders (NIDCD), Bethesda, MD, February 2009.
28. **Gaab, N.** (2008). Dynamic auditory processing, musical experience and language/reading development. Invited oral presentation at the Neuropsychology unit at Children's Hospital Salem, Salem, MA.
29. **Gaab, N.** (2008). Musical Experience, Auditory Processing and Language Development. Invited oral presentation at the Learning and the Brain conference; Cambridge, MA; November 2008.
30. **Gaab, N.** (2008). Dynamic auditory processing, musical experience and language/reading development. Invited keynote lecture at the 6th Annual Neuropsychology Research Day at the Graduate School and University Center, City University of New York, Queens, NY.
31. Bishop-Liebler, P., Hostetter, M., Himonides, E., Welch, G., **Gaab, N.** (2008). Linguistic and non-linguistic auditory processing skills in conservatoire level musicians, with and without developmental dyslexia, and nonmusicians. Oral presentation at the Music and Language conference, Tufts University, Medford, MA; July 2008.
32. **Gaab, N.** (2008). Linking music, language and reading: implications for developmental dyslexia. Oral presentation at the "International Society for Behavioral Neuroscience" Meeting, Sydney, Australia; June 2008.
33. **Gaab, N.** (2008). Dynamic auditory processing, musical experience and language/reading development. Invited oral presentation scheduled for the "5th Widex Congress of Pediatric Audiology", Amsterdam, The Netherlands; May 2008.
34. **Gaab, N.** (2008). Brain correlates of attention deficit hyperactivity disorder. The Children's Hospital Boston Developmental Medicine Forum, Newton, MA; April 2008.

Selected invited oral presentations/conference talks

35. **Gaab, N.** (2008). Neural correlates of rapid auditory processing are disrupted in children with developmental dyslexia and ameliorated with training: An fMRI study. Invited oral presentation for the National Assembly of Wales Visit in Boston, MA, April, 2008.
36. **Gaab, N.** (2008). Linking music, language and dyslexia: evidence from behavioral and imaging studies. Invited oral presentation at the Massachusetts Neuropsychology Society, Boston, MA, March, 2008.
37. **Gaab, N.,** Kovelman, I., Christodoulou, J. A., Liberman, D.A., Weinberg, A., Hostetter, M.K. , Norton, E., Reisner, S., Triantafyllou, C., Gabrieli, J.D.E. (2007). Learning to read changes the developing brain: Comparing phonological and semantic processing between prereaders and readers. Oral presentation at the “Society for Neuroscience 37th Annual Meeting”, San Diego, CA; November 2007.
38. Christodoulou, J. A. , **Gaab, N.,** Kovelman, I., Lieberman, D.A., Weinberg, A., Hostetter, M.K., Norton, E., Reisner, S., Triantafyllou, C., Whitfield-Gabrieli, S., Gabrieli, J.D.E. (2007). Learning to read changes the developing brain: Orthographic processing in prereaders and readers. Oral presentation at the “Society for Neuroscience 37th Annual Meeting”, San Diego, CA; November 2007.
(Abstract also selected for Press Book submission).
39. **Gaab, N.** (2006). The neglected sense: dynamic auditory processing, musical training and its role in language development and impairment. Special Seminar, Departments of Cognitive and Linguistic Sciences; Brown University, Providence, RI; February 2007.
40. **Gaab, N.** (2006). The neglected sense: dynamic auditory processing, musical training and its role in language development and impairment. Special Seminar, Department of Psychology, University of Montreal, Montreal, Canada; February 2007.
41. **Gaab, N.** (2007). Linking music, language and dyslexia. Invited oral presentation at the BMRA symposium, Boston, MA, February 2007.
42. **Gaab, N.** (2007). The neglected sense: auditory processing, musical training and its role in language/reading development and impairment. Invited special talk at the Temporal Dynamics of Learning Center and The Center for Research on Language, UCSD, La Jolla, CA, January 2007.
43. **Gaab, N.** (2006). Assessing the neural correlates of developmental dyslexia: challenges, new directions and the role of auditory processing. Oral presentation at the Developmental Medicine Center Colloquium at Children’s Hospital, Harvard Medical School, Boston, MA, December 2006.
44. **Gaab, N.** (2006). Linking music, language and dyslexia. Invited oral presentation at the Music Teacher Association of California; San Jose, CA, October 2006.
45. **Gaab, N.** (2006). Exploring the musical brain: Evidence for structural and functional adaptation. Invited oral presentation at Joyful Melodies: Cupertino, CA, October 2006.
46. **Gaab, N.** (2006). Colored blobs on human brains-what can neuroimaging teach us about the brain? Invited oral presentation at the TEC Summer Science Institute; Dover, MA, July 12 2006
47. **Gaab, N.** (2006). Linking Music, Language and Dyslexia. Invited oral presentation at the Learning and the Brain conference; Rethinking nature and nurture: using brain research to improve child learning and treat learning disorders. Cambridge, MA; May 2006.

Selected invited oral presentations/conference talks

48. **Gaab, N.** (2006). The neglected sense: dynamic auditory processing, musical training and its role in language development and impairment. Special Seminar, Department of Psychiatry and Behavioral Sciences, Stanford University Medical School, Stanford, CA; April 2006.
49. **Gaab, N.** (2006). Musical training, rapid temporal processing and language impairments. Oral presentation at CogLunch, Department of Brain and Cognitive Sciences, MIT, Cambridge, MA; March 2006.
50. **Gaab, N.** (2006). The challenge of assessing auditory processing in the MRI scanner and the influence of musical experience on linguistic and non-linguistic processing. Oral presentation at the Hearing Research Seminar Series, Hearing Research Center, Boston University, Boston, MA; January 2006.
51. **Gaab, N.** Music, language and spectro-temporal processing (2005). Oral presentation at the MIT Media Laboratory (group: Tod Machover) in Cambridge, MA; November 2005.
52. **Gaab, N.**, Kim, H., Lakshminarayanan, K., Archie, J.J., Glover, G., Tallal, P. & Gabrieli, J.D.E. (2005). Musical experience shapes auditory rapid spectro-temporal processing of linguistic and non-linguistic stimuli: evidence from fMRI and behavioral studies. Oral presentation at the “Society for Neuroscience 35th Annual Meeting”, Washington, DC November 2005. (***Abstract also selected for Press Book submission***).
53. **Gaab, N.** (2005). Connecting Music, Language and dyslexia: evidence from fMRI and behavioral studies. Oral presentation at the FriSem talk series at Stanford University, Stanford, CA October 2005.
54. **Gaab, N.** & Maeda, F. (2005). What can Neuroscience tell us about reading? Oral presentation (keynote speaker) at Asilomar Regional Reading Conference (organized by the California Reading Association), Pacific Grove, CA March 2005.
55. **Gaab, N.**, Gabrieli, J.D.E. & Glover, G.H. (2004). “Sparse temporal sampling” improves power in auditory experiments- an fMRI study comparing block, event-related and sparse designs. Oral presentation at the “Society for Neuroscience 34th Annual meeting”, San Diego, CA October 2004.
56. Walker, M., Stickgold, R., **Gaab, N.** & Schlaug, G. (2004). Sleep-dependent plasticity and motor skill learning in the human brain. Oral presentation at the “Society for Neuroscience 34th Annual meeting”, San Diego, CA October 2004.
57. Ozdemir, E., **Gaab, N.**, Overy, K., Norton, A. & Schlaug, G. (2004). Shared neural substrates for singing, speaking, humming, and phonation. Oral presentation at the “Society for Neuroscience 34th Annual meeting”, San Diego, CA October 2004.
58. **Gaab, N.** (2004). The human auditory cortex: fMRI, plasticity and the influence of musicianship. Oral presentation (Special Seminar) at Rutgers University, Newark, NJ in October 2004.
59. **Gaab, N.** (2004). Neural correlates of auditory learning- an fMRI training study. Oral presentation at the Bay Area Memory Meeting (BAMM), University of California, Berkeley, CA, August 2004.
60. **Gaab, N.** (2004). Music and the Brain: Auditory plasticity and sparse temporal sampling. Oral presentation at the Stanford Brain Research Institute, Stanford, CA August 2004.
61. Schlaug, G., Hamilton, R., Pascual-Leone, A., Schulze, K., Ozdemir, E. & **Gaab, N.** (2004). Absolute pitch in blind musicians. Oral presentation at the 8th International conference on music perception and cognition. Northwestern University, Chicago, IL August 2004.

Selected invited oral presentations/conference talks

62. **Gaab, N.** (2004). How (musical) experience shapes the brain. Oral presentation at the Symbolic Systems Alumni Day, Stanford University, Stanford, CA May 2004.
63. Overy, K., Norton, A., Alsop, D., **Gaab, N.**, Winner, E. & Schlaug, G. (2003). Musical Processing in young children aged 5 to 7: an fMRI study. Oral presentation at: “Society for Neuroscience 33rd Annual meeting”, New Orleans, LA November 2003.
64. **Gaab, N.** & Schlaug, G. (2003). Training Non-Musicians on a Musical Task – an fMRI study. Oral presentation at the 5th Triennial conference of the European Society for the Cognitive Sciences of Music, Hannover, Germany September 2003.
65. **Gaab, N.**, Zaehle, T., Gaser, C., Chen, Y. & Schlaug, G. (2002). The functional anatomy of pitch memory. Invited oral presentation at the fMRI experience IV conference at the National Institute of Mental Health, Bethesda, MD May 2002.

Scientific symposium membership

10/09 Chair for Nanosymposium (Session 217): Reading and Comprehension
Society for Neuroscience 39th Annual Meeting”, Chicago, IL; November 2009

Teaching Experience

- Gaab, N.** (2010). Language, Reading, Neuropsychology. Guest lecture for fall course “PSYC 3466 Cognitive Psychology”; Instructor Joe Moran; Department of Psychology; Northeastern University; November 2010.
- Gaab, N.** (2010). Audition and Music. Guest lecture for fall course “ 9.10 Cognitive Neuroscience”; Instructor: Sue Corkin; Department of Brain and Cognitive Sciences, MIT, October 2010.
- Gaab, N.** (2010). The typical and atypical reading brain: challenges, new directions and the role of auditory processing. Guest Lecture (within class for Special Education students) at Simmons College, Boston, MA, February 2010.
- Gaab, N.** (2009). Instructor for Quantitative Methods PSYCH 2207 (fall). Emmanuel College, Boston, MA.
- Gaab, N.** (2009). Making MR Imaging Child’s Play: challenges and solutions for pediatric neuroimaging. Workshop at Babes-Bolyai University, Department of Psychology, Cluj-Napoca, Romania, June 2009.
- Gaab, N.** (2008). Audition and Music. Guest lecture for spring course “ 9.10 Cognitive Neuroscience”; Instructor: Sue Corkin; Department of Brain and Cognitive Sciences, MIT, October 2008.
- Gaab, N.** (2008). A (very) basic introduction to fMRI and Statistical Parametric Mapping (SPM). Workshop at Children’s Hospital Boston, Boston, MA, March 2008.
- Gaab, N.**, Geiger, N. & Gabrieli, J. D. E. (2008). Developmental Dyslexia: Perceptual aspects, Diagnosis, Brain-correlates, Remediation and Prevention. One day workshop: Independent Activities Period (IAP); Department of Brain and Cognitive Sciences, MIT, January 2008.
- Gaab, N.** & Geiger, N. (2007). Developmental Dyslexia: Perceptual Aspects, Diagnosis, Brain-correlates, Remediation and Prevention. One day workshop: Independent Activities Period (IAP); Department of Brain and Cognitive Sciences, MIT, January 2007.

Teaching Experience

Gaab, N. (2006). Audition and Music. Guest lecture for spring course “ 9.10 Cognitive Neuroscience”; Instructor: Sue Corkin; Department of Brain and Cognitive Sciences, MIT, April 2006

Gaab, N. (2004). Music and the brain. Day class taught at Stanford Sophomore College; Stanford University, September 2004.

Professional development/Community outreach

Gaab N. (2010). The Brain. Lecture and activities for a Brain awareness Day for 5-10th graders at the German International School. Allston, MA; June 2010

Gaab, N. (2010). Literacy, Music and the Brain. Talk for the Florida Alliance for Arts Education in collaboration with the Florida Department of State/Division of Cultural Affairs, 2010 Arts Symposium Series; Panama City, June 2010.

Gaab, N. (2009). Linking music, language and reading. Workshop presentation for Massachusetts Department of Elementary and Secondary Education second annual summit on curriculum, instruction and assessment November, Marlborough. MA.

Gaab, N., Jenny Thompson, & Evelyn Geiser (2007-2009). Organization of music and language journal club for the Boston Area.

Gaab, N. (2009). Mentor for mentorship event of the Science Club for Girls, Cambridge, MA, April 2009.

Gaab, N. & Christodoulou, J (2009). The Reading Brain. Lecture for the Southborough/Northborough Special Education Parents Advisory Council in January 2009, Southborough, MA

Gaab, N. (2009). Music, language and reading. Lecture for parents at the Kingsley School in January 2009, Boston, MA.

Gaab, N. (2008): In our own backyard: cutting edge research in the diagnosis and treatment of dyslexia. Lecture for the Brookline Special Education Parents Advisory Council in October 2008, Boston, MA.

Gaab, N. (2008). The Reading Brain. Workshop at the Build the Out-of-School Time Network (BOSTnet) All Means All Conference, in October 2008, Boston, MA.

Gaab, N. & Christodoulou, J (2008). The Reading Brain. Parent Workshop scheduled for October 2008 at Landmark School, Prides Crossing, MA.

Gaab, N. (2008). The Reading Brain. Life Cycle Science Adult Workshop. Museum of Science, Boston, MA; April 2008.

Gaab, N. (2008). Why it all works: What brain development tells us about learning. Workshop for teachers: Science Club for Girls. Cambridge, MA, March, 2008.

Gaab, N. & Christodoulou, J. (2008). Landmark School: Teaching principals and Cognitive Neuroscience. Workshop for teachers at Landmark School, Prides Crossing, MA.

Gaab, N. (2007). Cognitive Neuroscience: Methods, brain plasticity, implications and applications. Workshop at the BCASLPA (British Columbia Association of Speech/Language Pathologists and Audiologists) meeting; Whistler, Canada, October 2007.

Professional development/Community outreach

Gaab, N. (2007). The musical brain. Day class taught at the Beaver Country Day School (Senior class), Chestnut Hill, MA, April 2007.

Gaab, N. (2007). Cognitive Neuroscience and Education: A useful collaboration? Workshop for the annual meeting of the Studienstiftung fellows in the US. Massachusetts Institute of Technology, January 2007.

Gaab, N. (2006). The musical brain. Day class taught at the Beaver Country Day School (Senior class), Chestnut Hill, MA, May 2006.

Gaab, N. (2004). Music and the brain. New insides from the cognitive neurosciences. Day class taught at the Beaver Country Day School (Senior class), Chestnut Hill, MA, March 2004.

Gaab, N. (2003). Music and the brain. Scientific evidence for functional and structural adaptation. Day class taught at the Beaver Country Day School (Senior class), Chestnut Hill, MA, April 2003.

Selected national media coverage

Enlivening Our Senses: Arts|Learning at the Core of Education

Films are produced for Arts|Learning, Inc. by Derek LeDoux from TQM Teleproductions,

Featured segment/interview

<http://artslearning.org/video>

Making brain imaging child's play

Vector (Children's Hospital Boston) fall 2009

http://www.childrenshospital.org/vector/vector_fall09/childs_play.html

Catching dyslexia in pre-readers

Vector (Children's Hospital Boston) fall 2009

http://www.childrenshospital.org/vector/vector_fall09/dyslexia.html

Selected national media coverage

Sounding out dyslexia

Scientific American Mind 04/2008

<http://www.sciam.com/article.cfm?id=sounding-out-dyslexia>

Sound Training Rewires Dyslexic Children's Brains For Reading

Brainconnection.com 2008

http://www.brainconnection.com/content/264_1

Easy listening

CHB Dream magazine 2008

http://www.childrenshospital.org/dream/dream_win08/deciphering_dyslexia.html

From bench to bedside to classroom

CHB Dream magazine 2008

http://www.childrenshospital.org/dream/dream_win08/from_bench_to_bedside_to_classroom.html

Selected national media coverage

Sound of music gives feel for language

ScienceNOW Daily news 11/17/2005

<http://sciencenow.sciencemag.org/cgi/content/full/2005/1117/3>

Music and language

Live radio interview KFBK Sacramento 11/17/05

www.kfbk.com

Study shows how sleep improves memory

ScienceDaily 06/29/2005

<http://www.sciencedaily.com/releases/2005/06/050629070337.html>

Music study helps language processing, studies show

Stanford Report 11/16/2005

<http://news-service.stanford.edu/news/2005/november16/music-111605.html>

Playing music can be good for your brain

San Francisco Chronicle: 11/17/2005

<http://www.sfgate.com/cgi-bin/article.cgi?file=/c/a/2005/11/17/MNGQ9FPODP1.DTL>

Playing music can be good for your brain

San Francisco Chronicle: 11/17/2005

<http://www.sfgate.com/cgi-bin/article.cgi?file=/c/a/2005/11/17/MNGQ9FPODP1.DTL>

ABC News: Music Magic

ABC World News airdate: 12/05

See http://www.childrenshospital.org/cfapps/research/data_admin/Site2547/mainpageS2547P1.html

Ad hoc referee/Advisory board/Editorial board

Behavioral and Brain Functions

Brain and Language

Behavioral Brain Research

Cerebral Cortex

Current Biology

Clinical Physiology and Functional Imaging

Cognitive, Affective, and Behavioral Neuroscience

European Journal of Neuroscience

Frontiers in Integrative Neuroscience (Review Editor)

Human Brain Mapping Journal

Human Brain Mapping conference 2006 -2010: Scientific abstracts

Journal of Cognitive Neuroscience

Journal of Child Psychology & Psychiatry

Journal of Interdisciplinary Music Studies (Advisory and Editorial board)

National Science foundation (grants)

Neuroimage

Neuroreport ,

Neuropsychologia,

Neuropsychology

Languages

German
English
French

Citizenship (permanent resident in the US)
Fluent
Basic Knowledge