

Ingrid Suzanne Johnsrude

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Personal: Married; 2 children (born 2002).

Academic Positions

- 2010 - **Professor of Cognitive Hearing Science**, Linköping University, Sweden (visiting)
2007 - **Associate Professor and Canada Research Chair** in Cognitive Neuroscience,
Department of Psychology, Queen's University
2004 – 2007: **Assistant Professor and Canada Research Chair** in Cognitive Neuroscience,
Department of Psychology, Queen's University
2000-2004: **Investigator Scientist**, MRC Cognition and Brain Sciences Unit, Cambridge UK

Education

- 1997-2000 **Wellcome Trust Travelling Postdoctoral Fellow**
Functional Imaging Laboratory, University College London, UK
Supervisor: Prof Richard SJ Frackowiak
1992-1997 **PhD in Clinical Psychology**
McGill University
Supervisor: Prof Brenda Milner
1989-1992 **MSc in Experimental Psychology**
McGill University
Supervisor: Prof Brenda Milner
1985-1989 **BSc (Hons) in Psychology**
Queen's University

Theses

- 1997 **PhD:** *The neural substrates of the processing of speech sounds* (Supervisor: B. Milner).
1991 **MSc:** *The effect of presentation rate on the comprehension and recall of speech after anterior temporal-lobe resection.* (Supervisor: BA Milner)
1989 **BScH:** *The effect of motivational context on conspecific song discrimination by Brown-headed cowbirds (Molothrus ater).* (Supervisor: R.G. Weisman)

Grants and awards

- 2009 **Fulbright Scholar Award** \$12,500 US (declined)
2009 Renewal of five-year **Tier II Canada Research Chair (CRC)** in Cognitive Neuroscience. \$500,000 (Cdn)
2009 Award an **NSERC Research Tools and Instruments Grant:** "Audiological and Cognitive Assessment Equipment, and Equipment for fMRI studies." \$99,559 (Cdn).
2009 Awarded a two-year **NSERC Discovery Grant:** "Stacie Supplement: Stacie Supplement: Cognitive factors that facilitate understanding of speech in noise by normally hearing adults." Tenable 2010-2012: \$203,580 (Cdn).
2009 Awarded an **NSERC E.W.R. Steacie Memorial Fellowship.**
2008 Selected by the **Royal Society of Canada** and the **Inter-Academies Panel** to join the international Young Scientists delegation to the **World Economic Forum – 2008 Annual Meeting of the New Champions**, Tianjin, China Sept 25-28 2008.
2008 Five-year **Canadian Institutes of Health Research (CIHR) Operating Grant:** "From sound to meaning: The neural and functional bases of speech perception". \$479,265 (Cdn).
2007 Five-year **Canadian Foundation for Innovation (CFI) and Ontario Innovation Trust, Leading Edge Fund Infrastructure Award:** "Development of new assessment tools for evaluation of brain function and dysfunction." (PI: Doug Munoz). \$14,000,000 (Cdn)
2007 Five-year **R-01 NIH Operating Grant:** "Auditory Speech Processing in the Perception and Production of Vowels" (PI Kevin Munhall) 1,032,750 (US)
2006 Five-year **CIHR Resource Grant:** "Peripheral equipment and maintenance of facility for functional resonance

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- imaging in humans and nonhuman primates" (PI Doug Munoz) \$422,000 (Cdn).
- 2006 Five-year **Early Researcher Award**, Ontario Government: "Functional neuroimaging of speech and language" \$100,000 (Cdn)
- 2006 Five-year **NSERC Discovery Grant**: "Factors that facilitate perceptual learning of speech" \$162,925 (Cdn).
- 2006 Five-year **Chancellor's Research Award**, Queen's University: "Functional neuroimaging of speech and language" \$50,000 (Cdn)
- 2004 Three-year **CIHR Operating Grant**: "From sound to meaning: The neural and functional bases of speech perception studies using fMRI". \$270,000 (Cdn)
- 2003 Five-year **Tier II Canada Research Chair (CRC)** in Cognitive Neuroscience. \$500,000 (Cdn)
- 2003 Five-year **Canadian Foundation for Innovation (CFI) CRC Infrastructure Funding**. \$125,000 (Cdn)
- 2003 Five-year **Ontario Innovation Trust CFI Infrastructure Matching Funds**. \$125,000 (Cdn)
- 2003 **Ig Nobel prize in Medicine** for Maguire et al (2000) PNAS, 97, 4398-403.
- 2003 One-year **Research Grant from the Leverhulme Trust**: "Factors that facilitate perceptual learning of speech" (with Matt Davis, Bob Carlyon, MRC CBU). £21,707.
- 2002 Non-stipendiary **Research Fellowship, Clare Hall College, Cambridge** (Oct 2002 - Sept 2005)
- 2002 €15,000 **Grant from the European Science Foundation** to fund an international two-day Exploratory Workshop on "Neurobiology of communication: comparative and evolutionary perspectives on receptive language", Sept 2002, Cambridge, UK
- 2001 £10,000 **Grant from the Wellcome Trust** to fund an international one-day workshop "Structure-function relationships in human auditory cortex", June 2001, Cambridge, UK (with Deb Hall, MRC Institute of Hearing Research, Nottingham, UK).
- 1997-1999 **Wellcome Trust Travelling Research Fellowship**.
- 1997 Awarded a **Human Frontiers Science Program Organisation Fellowship** for 2 years (declined).
- 1996 Selected for the **McDonnell-Pew Summer Institute in Cognitive Neuroscience**, Dartmouth College, Hanover, New Hampshire (deferred to 1997).
- 1990-1995 **Medical Research Council of Canada Studentship**
- 1989 **First Class Honours** in Psychology, Queen's University, Kingston, Canada
- 1985-1986 **Newfoundland Electoral District Prize Scholarship**

Teaching

- PSYC 501: Honours' Thesis Project course coordinator. Fall-Winter 2008-2009.
- PSYC 100: Discovery Project Tutorials (sessions to promote engagement on the part of PSYC 100 students); Fall 2008.
- PSYC 921: Signals and Noise. Graduate seminar (team-taught with Dr Kevin Munhall). Spring 2007.
- PSYC 930: Controversies in Sensory Integration. Graduate seminar (team-taught with Drs Susan Lederman, Kevin Munhall, and Niko Troje). , Fall 2005.
- PSYC 917: Introduction to Cognitive Neuroimaging. Graduate seminar. Winter, 2006; 2008.
- PSYC 380: Advanced Perception, Queen's University, Winter 2005-2007. Undergraduate course (Co-taught with Dr. Niko Troje 2005-2006; Kevin Munhall 2007).
- PSYC 215: Experimental Psychology: Perception, Queen's University, Winter 2005-2009 Undergraduate course (Co-taught with Dr. Niko Troje 2005-2006)
- "Introduction to Neuroimaging" Three two-hour lectures for graduate students, postdoctoral fellows and faculty, MRC Cognition and Brain Sciences Unit, Winter 2003, Winter 2004
- "Frontiers in Neuroscience Module" Two two-hour lectures, Masters in Bioscience Enterprise Program, Cambridge-MIT Institute, Winter 2003, Winter 2004.

Advising and Training

Postdoctoral Fellows

2005 - 2008 **1**

Graduate Students

2009- **2**, MSc, Psychology

2007- **2** PhD, Neuroscience (1 cosupervised)

2006- **1** PhD, Neuroscience

2005-2010 **1** PhD, Computing; cosupervised

2006-2008 **2** MSc, (1Neuroscience, 1 Computing, cosupervised)

2006-2007 1 MSc, Psychology; cosupervised
2005-2007 1 MSc, Neuroscience
2000-2004 1 PhD

Undergraduate Thesis Students

2009-2010 1 Honours' student; Queen's University
2008-2009 3 Honours' student; Queen's University
2007-2008 2 Honours' student; Queen's University
2006-2007 3 Honours' student; Queen's University
2005-2006 1 Honours' student; Queen's University
2002-2003 1 Part II Psychology; Cambridge University
2001-2002 2 Part II Psychology; Cambridge University
2000-2001 2 Part II Psychology; Cambridge University

Professional Affiliations

Association for Research in Otolaryngology (ARO)
Acoustical Society of America (ASA)
British Society of Audiology (BSA)
Canadian Society for Brain, Behaviour and Cognitive Science (CSBBCS)
Cognitive Neuroscience Society (CNS)
Organization for Human Brain Mapping (HBM)
International Society for Behavioural Neuroscience (ISBN)
Society for Neuroscience (SfN)

Peer-review activities

Reviewer for journals including:

Annals of Neurology; Archives of General Psychiatry; Archives of Neurology; Brain; British Journal of Neurosurgery; Cerebral Cortex; European Journal of Neuroscience; Journal of Neurology; Neurosurgery and Psychiatry; Journal of Cognitive Neuroscience; Journal of Neuroscience; Learning and Motivation; Nature Neuroscience; NeuroImage; Neuropsychologia; Psychological Science; Science; Trends in Cognitive Sciences.

Reviewer of grant applications for:

Medical Research Council (MRC), UK; Biotechnology and Biological Sciences Research Council (BBSRC), UK; Medical Research Fund of Western Australia; The Scottish Executive; National Science Foundation, USA; Canadian Institutes of Health Research (CIHR); National Sciences and Engineering Research Council (NSERC), Economic and Social Research Council (ESRC), UK; Ontario Ministry for Research and Innovation.

Peer-reviewed papers: published or in press.

- 57) **Hervais-Adelman AG**, Davis MH, Johnsrude IS, **Taylor KJ**, Carlyon RP. Generalization of perceptual learning of vocoded speech (in press). *Journal of Experimental Psychology: Human Perception and Performance*.
- 56) Rodd, JM, Davis, MH and Johnsrude, IS (in press). Effortful understanding of ambiguous words in speech: Evidence from dual-task interference effects. *Brain and Language*.
- 55) Peelle, J.E, Johnsrude, I.S. and Davis, M.H (in press) Hierarchical processing for speech in human auditory cortex and beyond. *Frontiers in Human Neuroscience*.
- 54) **Tahmasebi, A.M.**, Abolmaesumi, P., **Wild, C.**, Johnsrude, I. S. (2010). A validation framework for probabilistic maps using Heschl's gyrus as a model. *NeuroImage*. Apr 1;50(2):532-44
- 53) **Kitada, R**, Johnsrude, IS, Kochiyama, T, Lederman, SJ. (2010). Brain networks involved in haptic and visual identification of facial expressions of emotion: An fMRI study. *NeuroImage*. 2010 Jan 15;49(2):1677-89.
- 52) **Zheng, ZZ**, Munhall, KG, Johnsrude, IS. (2010) Functional overlap between regions involved in speech perception and in monitoring one's own voice during speech production. *Journal of Cognitive Neuroscience*. Aug;22(8):1770-81.
- 51) **Tahmasebi AM**, Abolmaesumi P, Geng X, Morosan P, Amunts K, Christensen G and Johnsrude IS, (2009)

- A new approach for creating customizable cytoarchitectonic probabilistic maps without a template. In Proceedings of the 12th International Conference on Medical Image Computing and Computer-Assisted Intervention: Part II. *Lecture Notes In Computer Science; Vol. 5762: 795 – 802.*
- 50) **Tahmasebi AM**, Abolmaesumi P, **Zheng ZZ**, Munhall, KG, Johnsrude IS (2009). Reducing inter-subject anatomical variation: Effect of normalization method on sensitivity of functional magnetic resonance imaging data analysis in auditory cortex and the superior temporal region. *NeuroImage*, 47 (4) 1522-1531
 - 49) Munhall KG, **Macdonald EN**, **Byrne SK**, Johnsrude I. (2009) Talkers alter vowel production in response to real-time formant perturbation even when instructed not to compensate. *J Acoust Soc Am*. 2009 Jan;125(1):384-390.
 - 48) **Tahmasebi AM**, Johnsrude IS, Wild C, Moghari MH, Abolmaesumi P. (2008). A statistical atlas-based technique for automatic segmentation of the first Heschl's gyrus in human auditory cortex from MR images. *Conf Proc IEEE Eng Med Biol Soc*. 2008;1:3920-3.
 - 47) **Kitada R**, Johnsrude IS, Kochiyama T, Lederman SJ. (2009) Functional specialization and convergence in the occipito-temporal cortex supporting haptic and visual identification of human faces and body parts: An fMRI Study. *Journal of Cognitive Neuroscience*, 21: 2027-45.
 - 46) **Hervais-Adelman A**, Davis MH, Johnsrude IS, Carlyon RP.(2008). Perceptual learning of noise vocoded words: effects of feedback and lexicality. *J Exp Psychol Hum Percept Perform*. 2008 Apr;34(2):460-74.
 - 45) **Heinrich A**, Carlyon RP, Davis MH, Johnsrude IS. (2008). Illusory vowels resulting from perceptual continuity: a functional magnetic resonance imaging study. *J Cogn Neurosci*. 2008 Oct;20(10):1737-52.
 - 44) **Bailey L**, Abolmaesumi P, Tam J, Morosan P, Cusack R, Amunts K, Johnsrude I. (2007). Customized cytoarchitectonic probability maps using deformable registration: primary auditory cortex. *Med Image Comput Comput Assist Interv Int Conf Med Image Comput Comput Assist Interv*. 10(Pt 2):760-8
 - 43) Davis MH, Coleman MR, Absalom AR, Rodd JM, Johnsrude IS, Matta BF, Owen AM, Menon DK. (2007). Dissociating speech perception and comprehension at reduced levels of awareness: an fMRI study with graded propofol sedation. *Proc Nat Acad Sci*, 104, 16032-7.
 - 42) Balodis IM, Johnsrude, IS, Olmstead, MC (2007). Intact preference conditioning in acute intoxication despite deficient declarative knowledge and working memory. *Alcoholism: Clinical and Experimental Research*, 31, 1800-1810.
 - 41) Coleman MR, Rodd JM, Davis MH, Johnsrude IS, Menon DK, Pickard JD, Owen AM. (2007). Do vegetative patients retain aspects of language comprehension? Evidence from fMRI. *Brain*, 130, 2494-507.
 - 40) Patterson RD, Johnsrude IS (2007). Functional imaging of auditory processes fundamental to speech recognition. *Philosophical Transactions of the Royal Society London B: Biological Sciences*. 363, 1023-1035.
 - 39) Davis, MH & Johnsrude, IS (2007). Hearing speech sounds: Top-down influences on the interface between audition and speech perception. *Hearing Research*. 229, 132-47.
 - 38) Uppenkamp S[§], Johnsrude I[§], Norris D, Marslen-Wilson W, Patterson RD (2006). Locating the initial stages of speech-sound processing in human temporal cortex. *NeuroImage*, 31, 1284-96[§] joint first authors.
 - 37) Schwarzbauer C, Davis MH, Rodd JM, Johnsrude IS. (2006). Interleaved silent steady state (ISSS) imaging: A new sparse imaging method applied to auditory fMRI. *NeuroImage*, 29, 774-82.
 - 36) Owen AM, Coleman MR, Menon DK, Berry EL, Johnsrude IS, Rodd JM, Davis MH, Pickard JD. (2005). Using a hierarchical approach to investigate residual auditory cognition in persistent vegetative state. *Progress in Brain Research*, 150, 457-71.
 - 35) Owen AM, Coleman MR, Menon DK, Johnsrude IS, Rodd JM, Davis MH, Taylor K, Pickard JD. (2005). Residual auditory function in persistent vegetative state: A combined PET and fMRI study. *Neuropsychological Rehabilitation*, 15, 290-306.
 - 34) **Cox S**, Andrade A, Johnsrude IS (2005). Learning to like: A role for human orbitofrontal cortex in conditioned reward. *Journal of Neuroscience* 25, 2733-2740.
 - 33) Davis MH, Johnsrude IS, **Hervais-Adelman A**, **Taylor K**, **McGettigan C**. (2005) Lexical information drives perceptual learning of distorted speech: evidence from the comprehension of noise-vocoded sentences. *Journal of Experimental Psychology: General* 134, 222-241.
 - 32) Rodd JM, Davis MD, Johnsrude IS. (2005) The neural mechanisms of speech comprehension: fMRI studies of semantic ambiguity. *Cerebral Cortex*. 15, 1261-9.
 - 31) Hauk O, Johnsrude IS, Pulvermuller F. (2004) Somatotopic representation of action words in human motor and premotor cortex. *Neuron* 41, 301-7.

- 30) Curran E, Sykacek P, Stokes M, Roberts S, Penney W, Johnsrude I, Owen A. (2004) Cognitive tasks for driving a brain computer interfacing system: a pilot study. *IEEE Transactions on Neural Systems and Rehabilitation*, **12**, 48-54.
- 29) Davis MH, Johnsrude IS. (2003). Hierarchical processing in spoken language comprehension. *Journal of Neuroscience*, **23**, 3423-31.
- 28) Hall DA, Hart H, Johnsrude IS. (2003) Relationships between human auditory cortical structure and function. *Audiology & Neuro-Otology*, **8**, 1-18.
- 27) Scott SK, Johnsrude IS. (2003). The neuroanatomical and functional organization of speech perception. *Trends in Neurosciences*, **26**, 100-7.
- 26) Brett M, Johnsrude IS, Owen AM. (2002) The problem of functional localisation in the human brain *Nature Reviews Neuroscience*, **3**, 243-249.
- 25) Hall DA, Johnsrude IS, Gonçalves M, Haggard MP, Palmer AR, Summerfield AQ, Akeroyd MA, Frackowiak RSJ. (2002) Spectral and temporal processing in human auditory cortex. *Cerebral Cortex*, **12**, 140-149.
- 24) Johnsrude IS, Giraud A-L, Frackowiak RSJ. (2002) Functional imaging of the auditory system: The use of positron emission tomography. *Audiology & Neuro-Otology*, **7**, 251-76.
- 23) Owen AM, Menon DK, Johnsrude IS, Bor D, Scott SK, Manly T, Williams EJ. (2002) Detecting residual cognitive function in persistent vegetative state (PVS). *NeuroCase*, **8**, 394-403.
- 22) Patterson R, Uppenkamp S, Johnsrude IS, Griffiths TD. (2002) The processing of temporal pitch and melody information in auditory cortex. *Neuron*, **36**, 767-76.
- 21) Cox SML, Stefanova E, Johnsrude IS, Robbins TW, Owen AM. (2002). Preference formation and working memory in Parkinson's disease and normal ageing. *Neuropsychologia*, **40**, 317-326.
- 20) Gonçalves M, Hall DA, Johnsrude IS, Haggard MP. (2001). Can meaningful effective connectivities be obtained between auditory cortical regions? *NeuroImage*, **14**, 1353-60.
- 19) Griffiths T, Uppenkamp S, Johnsrude IS, Josephs O, Patterson R. (2001). Encoding of the temporal regularity of sound in the human brainstem. *Nature Neuroscience*, **4**, 633-7.
- 18) Good CD, Johnsrude IS, Ashburner J, Henson RNA, Friston KJ, Frackowiak RSJ. (2001) A voxel-based morphometric study of ageing in 465 normal adult human brains. *NeuroImage*, **14**, 21-36.
- 17) Good CD, Johnsrude IS, Ashburner J, Henson RNA, Friston KJ, Frackowiak, RSJ. (2001) Cerebral asymmetry and the effects of sex and handedness on brain structure: a voxel-based morphometric analysis of 465 normal adult human brains. *NeuroImage*, **14**, 685-700.
- 16) Rowe JB, Owen AM, Johnsrude IS, Passingham RE. (2001). Imaging the components of a planning task. *Neuropsychologia*, **39**, 315-327.
- 15) Giraud A-L, Lorenzi C, Ashburner J, Wable J, Johnsrude I, Frackowiak R, Kleinschmidt A. (2000). Representation of the temporal envelope of sounds in the human brain. *Journal of Neurophysiology*, **84**, 1588-1598.
- 14) Johnsrude IS, Owen AM, White NM, Zhao WV, Bohbot V. (2000) Impaired preference conditioning after anterior temporal-lobe resection in humans. *Journal of Neuroscience*, **20**, 2649-56.
- 13) Maguire EA, Gadian DG, Johnsrude IS, Good CD, Ashburner J, Frackowiak RSJ, Frith CD. (2000). Navigating induces structural change in the hippocampus of taxi drivers. *Proceedings of the National Academy of Sciences*, **97**, 4398-4403.
- 12) Johnsrude IS, Penhune VB, Zatorre RJ. (2000) Functional specificity in right human auditory cortex for perceiving pitch direction. *Brain*, **123**, 155-163.
- 11) Griffiths TD, Johnsrude I, Dean JL, Green GGR. (1999). A common neural substrate for the analysis of pitch and duration pattern in segmented sound? *NeuroReport*, **10**, 3825-3830.
- 10) Johnsrude IS, Owen AM, Zhao WV, White NM. (1999). Conditioned pattern preference without awareness in humans: A novel experimental approach. *Learning and Motivation*, **30**, 250-264.
- 9) Johnsrude IS, Owen AM, Crane J, Milner BA, Evans AC. (1999). A cognitive activation study of memory for spatial relationships. *Neuropsychologia*, **37**, 829-841.
- 8) Ashburner J, Hutton C, Frackowiak R, Johnsrude I, Price C, Friston K. (1998). Identifying global anatomical differences: deformation-based morphometry. *Human Brain Mapping*, **6**, 348-357.
- 7) Klein D, Olivier O, Milner BA, Zatorre R, Johnsrude IS, Meyer E, Evans AC. (1997). Obligatory role of the LIFG in synonym generation: evidence from PET and cortical stimulation. *Neuroreport*, **8**, 3275-3279.
- 6) Milner BA, Johnsrude IS, Crane J. (1997). Medial temporal-lobe involvement in spatial working memory. *Philosophical Transactions of the Royal Society of London, B, Biological Sciences*, **352**, 1469-1474.
- 5) Johnsrude IS, Zatorre R, Milner BA, Evans, AC (1997). Left-hemisphere specialization for the processing of acoustic transients. *NeuroReport*, **8**, 1761-1765.

- 4) Johnsrude IS, Milner BA. (1994). The effect of presentation rate on the comprehension and recall of speech after anterior temporal-lobe resection. *Neuropsychologia*, **32**, 77-84.
- 3) Johnsrude IS, Weary DM, Ratcliffe L, Weisman R. (1994). The effect of motivational context on conspecific song discrimination by Brown-headed cowbirds (*Molothrus ater*). *Journal of Comparative Psychology*, **108**, 172-178.
- 2) Hurly TA, Weisman RG, Ratcliffe L, Johnsrude IS. (1991). Absolute and relative pitch production in the song of the white-throated sparrow (*Zonotrichia albicollis*). *Bioacoustics*, **3**, 81-91.
- 1) Weisman RG, Ratcliffe L, Johnsrude IS, Hurly TA. (1990). Absolute and relative pitch production in the song of the black-capped chickadee (*Parus atricapillus*). *The Condor*, **92**, 118-124.

Book chapters

- 11) Johnsrude IS, Hauk, O. (in press). Neuroimaging: Techniques for examining human brain function. In Braisby, N (ed). *Cognitive Psychology: A Methods Companion*, Second Edition. Oxford: Oxford University Press.
- 10) Talavage, T.M., Johnsrude, I.S., Gonzalez Castillo J., (in press). Chapter 6: Hemodynamic Imaging: fMRI and PET. In: *Springer Handbook of Auditory Research. Human Auditory Cortex* (eds T. Overath & D. Poeppel) Series Editors Richard R. Fay and Arthur N. Popper
- 9) Carlyon R.P, Thompson S.K, **Heinrich A**, Pulvermuller F, Davis M.H, Shtyrov Y, Cusack R, & Johnsrude I.S. (in press). Objective measures of auditory scene analysis. In *Auditory Physiology, Perception and Models*, Edited by E. Lopez-Poveda. Springer, New York.
- 8) Patterson RD, Johnsrude IS (in press). Functional imaging of auditory processes fundamental to speech recognition. In *The perception of speech: from sound to meaning*. BCJ Moore, W Marslen-Wilson & L. Tyler, (Eds). Oxford: Oxford University Press.
- 7) Johnsrude IS, Hauk, O. (2005). Neuroimaging: Techniques for examining human brain function. In Braisby, N (ed). *Cognitive Psychology: A Methods Companion*. Oxford: Oxford University Press.
- 6) Johnsrude IS, Davis MH, **Hervais-Adelman, A** (2005). From sound to meaning: Hierarchical processing in speech comprehension. D. Pressnitzer, A. de Cheveigné, S. McAdams, and L. Collet (Eds) *Auditory Signal Processing: Physiology, Psychoacoustics, and Models*. New York: Springer-Verlag. pp 251-258.
- 5) Graham KS, Johnsrude IS, Simons JS. (2003). The Temporal Lobe. *Encyclopedia of the Neurological Sciences* (Eds. Aminoff, M. & Daroff, R.), Volume 4, 486-495, Academic Press, San Diego.
- 4) Johnsrude IS. (2001). Neuropsychological consequences of temporal-lobe lesions. In *Cognitive deficits in brain disorders*. J. E. Harrison & A. M. Owen (Eds.). London: Martin Dunitz Publishers. pp 37-58.
- 3) Owen AM, Epstein R, Johnsrude IS. (2001). fMRI: Applications in Cognitive Neuroscience In: *Functional Magnetic Resonance Imaging of the Brain: Methods for Neuroscience*. P.M. Matthews, P. Jezzard & S.M. Smith (Eds.). Oxford: Oxford University Press. P 311-327
- 2) Johnsrude IS, Giraud A-L, Morosan P, Brett M, Owen AM, Zilles K. (2000). Functional Imaging of the auditory system: The use of positron emission tomography. *Proceedings of the 4th European Congress of Oto-Rhino-Laryngology Head and Neck Surgery*. K. Jahnke & M. Fischer (Eds.). Bologna: Monduzzi Editore, pp 49-58.
- 1) Milner B, Johnsrude I, Crane J. (1998). Medial temporal-lobe involvement in spatial working memory. In *Parietal and hippocampal contributions to spatial cognition*. J. M. O'Keefe & N. Burgess (Eds.). Oxford: Oxford University Press. pp 247-258.

Abstracts and Conference Presentations: Published or in Press

- 63) Johnsrude, IS Rodd, JM, Davis MH. The presence of ambiguous words in sentences decreases intelligibility in noise. Submitted: Annual Association for Research in Otolaryngology meeting, Anaheim California Feb 2010.
- 62) Johnsrude, IS, **Wild, C**, Davis, MH. Functional connectivity analysis of auditory functional magnetic resonance imaging (fMRI) data: The coherence of activity between auditory and motor regions changes with speech intelligibility. International Symposium on Hearing, Salamanca Spain, May 31-Jun 4, 2009.
- 61) Carlyon RP, Thompson, SK, **Heinrich, A**, Pulvermuller F, Davis MH, Shtyrov Y, Cusack R and Johnsrude IS. Objective Measures of Auditory Scene Analysis. International Symposium on Hearing, Salamanca Spain, May 31-Jun 4, 2009.
- 60) **Tahmasebi, A**, Abolmaesumi, P, Geng X, Morosan P, Amunts K, Christiansen, G. Johnsrude IS, (2009) A New Approach for Creating Customizable Cytoarchitectonic Probabilistic Maps Without a Template. *Medical Image Computing and Computer Assisted Intervention (MICCAI)*, London UK, 2009

- 59) **Tahmasebi, A**, Abolmaesumi, P, Morosan P, Johnsrude IS, (2009) A New Approach for Creating Customizable Cytoarchitectonic Probabilistic Maps of the Primary Auditory Cortex with Quantification of the Goodness of Fit. British Society for Audiology Meeting, Southampton UK Sept 2009.
- 58) **Heinrich A**, Davis MH, Carlyon RP, Johnsrude, IS. (2009) fMRI evidence that illusory continuity of vowels does not depend on attentional state. Assoc. Res. Otolaryngol. Abs.: 1056.
- 57) **Wild, C**, Davis, MH, **Hervais-Adelman, A**, and Johnsrude IS (2009) Functional coupling between auditory and motor regions is modulated by the perceptual difficulty of speech. 16th Annual Cognitive Neuroscience Society Meeting, San Francisco, Mar 21-24, 2009. Journal of Cognitive Neuroscience Supplement p 152.
- 56) **Tahmasebi A** , Abolmaesumi, P, **Wild C**, Johnsrude, IS. Quantification of inter-subject variability in human brain: a validation framework for probabilistic maps. In Hu, XP and Clough AV (eds) SPIE Proceedings: Medical Imaging 2009: Biomedical Applications in Molecular, Structural, and Functional Imaging.
- 55) **Tahmasebi AM**, Abolmaesumi, P, Vikal, S, and Johnsrude IS. An Automatic Model-based Segmentation Technique for the Extraction of the First Heschl's Gyrus in Human Auditory Cortex from MR Images", 15th Annual Meeting for Human Brain Mapping, San Francisco, June 18-23 2009.
- 54) Garcia, A, Klar, S, Bowes, J, Johnsrude, I, Stroman.P (2008) Recruitment of multiple brain areas to perform focus attention tasks in cognitive normal older adults: an fMRI study The Gerontologist, Oct 2008, 48, 497.
- 53) **Tahmasebi, AM**, Abolmaesumi P, **Wild C** and Johnsrude IS. (2008) A Novel Automatic Segmentation Method for ROI-based Functional Analysis", Workshop on Analysis of Functional Medical Images, Medical Image Computing and Computer Assisted Intervention (MICCAI), New York USA, 2008.
- 52) **Tahmasebi, A**, , Johnsrude I. **Wild C**, Hedjazi Moghari M, Abolmaesumi, P. A Statistical Atlas-based Technique for Automatic Segmentation of the First Heschl's Gyrus in Human Auditory Cortex from MR Images. Submitted to 30th Annual International Conference of the IEEE Engineering in Medicine and Biology Society, Aug 20-24 2008, Vancouver, Canada.
- 51) **Heinrich A**, Carlyon RP, Davis MH, Johnsrude IS. How attention influences the perception of illusory vowels resulting from perceptual continuity: An fMRI study. Cognitive Neuroscience Society Annual Meeting, San Francisco, April 2008. Journal of Cognitive Neuroscience Supplement, p 227.
- 50) **MacDonald, H**, Davis, M, Pichora-Fuller, K, & Johnsrude, I. Contextual influences: Perception of sentences in noise is facilitated similarly in young and older listeners by meaningful semantic context; neural correlates explored via fMRI. Acoustics '08 Paris, 29 June – 4 July 2008.
- 49) **Wild, C**, Davis, MH, **Hervais-Adelman, H**, Johnsrude I. Perceptual Clarity of Speech Modulates Activity in Left Temporal-lobe Regions: Evidence From fMRI for Top-down Influences Acoustics '08 Paris, 29 June – 4 July 2008.
- 48) **Wild, C**, Davis, MH, **Hervais-Adelman, H**, Johnsrude I. (2008) Perceptual clarity of speech modulates activity in left temporal-lobe regions: Evidence from fMRI for top-down influences. Assoc. Res. Otolaryngol. Abs.: 1169.
- 47) Davis, MH, Johnsrude, IS, **Hervais-Adelman, H**, Rogers J. Motor regions contribute to speech perception: awareness, adaptation and categorization. Acoustics '08 Paris, 29 June – 4 July 2008.
- 46) Johnsrude IS, **Mackey A**, **Alexander EM**, **MacDonald HP** & Carlyon RP. (in press) Effects of voice familiarity and age on attention to one of two simultaneous talkers. Acoustics '08 Paris, 29 June – 4 July 2008.
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