

## Curriculum Vitae

### Part I: General Information:

**Date Prepared:** June 14, 2014

**Name:** Margaret Niznikiewicz, Ph.D.

**Office Address:** Dept. of Psychiatry 116A, Harvard/VA Medical Center, Brockton, MA 02301

**E-mail:** [margaret\\_niznikiewicz@hms.harvard.edu](mailto:margaret_niznikiewicz@hms.harvard.edu)

**FAX:** 508-583-0059

**Birthplace:** Wroclaw, Poland

### Education:

1979	B.A. English; University of Wroclaw, Poland
1981	M.A. Linguistics; University of Wroclaw, Poland
1988	B.S. Developmental Psychology; State University of Virginia, Blacksburg, VA
1990	M.S. Experimental Psychology; SUNY at Stony Brook, NY
1992	Ph.D. Experimental Psychology and Electrophysiology; SUNY at Stony Brook, NY

### Pre-doctoral Training:

1990-1991	Internship in Clinical Psychology at Suffolk Child Development Center, Stony Brook, NY
1991-1992	Externship in Clinical Psychology at Albert Einstein College of Medicine Research Center, NY

### Postdoctoral Training:

Fellowships:

1992-1994	National Institute of Mental Health - Postdoctoral Clinical Research Training Fellow in Biological Psychiatry in the Laboratory of Neurophysiology and Cognitive Neuroscience, Harvard Medical School, Department of Psychiatry at the Massachusetts Mental Health Center and Brockton VA Medical Center
-----------	--

### Academic Appointments:

1981-1983	Lecturer in the Academy of Fine Arts, Wroclaw, Poland
1983-1985	Assistant Professor in the Academy of Fine Arts, Wroclaw, Poland
1988-1991	Teaching Assistant SUNY at Stony Brook, NY
1992-1994	Research Fellow, Harvard Medical School, Boston, MA
1993-2001	Instructor, Psychiatry Department, Harvard Medical School
2001-2009	Assistant Professor, Psychiatry Department, Harvard Medical School
2009-	Associate Professor, Harvard Medical School, Boston, MA

### Hospital Appointments:

1992-present	Research Health Scientist, Department of Psychiatry, Boston VA Healthcare System
1993-	Director, Cognitive Neuroscience Laboratory, Boston VAMC, Jamaica Plain Campus, Department of Psychiatry, Harvard Medical School, Boston, MA
1998-	Director, Cognitive Neuroscience Laboratory, Electrophysiology, Boston VAMC, Department of Psychiatry, Harvard Medical School, Boston, MA

1998- Research Health Scientist, Department of Psychiatry at the VA Boston Healthcare System and Harvard Medical School, Brockton, MA  
1999-2007 Director, Brain Imaging Laboratory, Taunton State Hospital, Taunton, MA  
2008- Director, Cognitive Neuroscience Laboratory, Beth Israel Medical Center, Boston, MA

**Hospital and Health Care Organization Service Responsibilities and Major Administrative Responsibilities:**

1995- Clinical Research Advisor for Postdoctoral Fellows, Laboratory of Clinical Neuroscience, Department of Psychiatry, Boston VA Healthcare System and Harvard Medical School  
1996- Internal Review Board for Boston VA Healthcare System, member  
1997- Clinical Research Advisor for Visiting Scholars in Laboratory of Clinical Neuroscience, Boston VA Healthcare System and Harvard Medical School  
2002- Preceptor, Clinical Research Training Program, Harvard Medical School

**Major Committee Assignments:**

*National and Regional*

2006- Ad hoc reviewer for National Science Foundation  
2007- NIH Neural Basis of Psychopathology, Addictions and Sleep Disorders Study Section (NPAS), Ad Hoc Member invited to be a permanent member starting 2009.  
2007- Internal Review Board Member, Stonehill College, Easton, MA

*Harvard Medical School*

2005- Psychiatry Research Committee, Department of Psychiatry, Harvard Medical School  
2005- Mysell Committee, Department of Psychiatry, Harvard Medical School

*VA Boston Healthcare*

1996- Internal Review Board Member, VA Boston Healthcare System  
2010- Pathways to Research Resident Program

**Professional Societies:**

1992 - Society for Psychophysiological Research, member  
1994 - American Psychological Society, member  
1996- Cognitive Neuroscience Society, member  
2000- Biological Psychiatry, member

**Editorial Boards and Review Service:**

*Ad Hoc Reviewer*

Psychophysiology  
Biological Psychiatry  
Journal of American Psychiatry  
Archives of General Psychiatry  
Schizophrenia Research  
Psychiatry Research  
Abnormal Psychology  
American Journal of Psychiatry  
Brain and Language  
Brain and Cognition  
Journal of Cognitive Neuroscience  
International Journal of Psychophysiology  
NeuroImage

Neuroreport  
Behavioral Brain Research  
Cognitive Neuropsychiatry  
BioMed Psychiatry  
Journal of Behavior Therapy and Experimental Psychiatry

*Guest Editor:*

Schizophrenia Research and Treatment: Schizophrenia as a Disorder of Communication.

Editor: Biomedical Research, International

**Awards and Honors:**

- 1991 Sigma Xi Graduate Research Award.
- 1991 SUNY at Stony Brook Departmental Award for Outstanding Research.
- 1992 Sigma Xi, The Scientific Research Society Grand-in-Aid.
- 1992-1994 NIMH National Research Service Award (NRSA)-Clinical Research Training Fellow.
- 1994-1995 The Livingston Fellowship Award. Electrophysiological and Neuropsychological Measures of Cognitive Impairment in Schizotypal Personality Disorder.
- 1994-1996 National Alliance for Research on Schizophrenia and Depression Young Investigator Award; Event Related Potential Measures of Language Dysfunction in Schizophrenia.

**Part II: Research, Teaching, and Clinical Contributions:**

**Major Research Interests:**

1. The relationship between brain function and cognitive and clinical manifestations of language impairment in schizophrenia.
2. The biological basis of language function in both healthy and clinical populations.
3. The biological basis of semantic memory structure.
4. The neuroscience models of language and semantic memory
5. ERP as a tool in probing healthy and abnormal cognition.
6. Schizotypal Personality Disorder - the validity of the construct of schizophrenia spectrum disorders.
7. fMRI as a method to study healthy and abnormal cognition.
8. Social cognition in normal and clinical populations.
9. Multimodal processing in the service of social cognition.
10. Biological basis of schizophrenia spectrum disorders
11. Real time fMRI as a tool for cognitive remediation and cognitive inquiry

**A. Narrative Report of Research, Teaching, and Other Supporting Activities.**

**Research:** My research interests focus on the cognitive neuroscience of broadly understood social communication in both healthy and clinical populations with the use of behavioral and brain imaging methodologies. Within this topic, I am interested in language phenomena at sensory, phonological, and semantic levels as well as in the memory structure and the processes within it. My most recent research interests encompass supra-linguistic aspects of language including prosody and emotional processing. In addition, given the fact that successful communication rarely relies on information from one modality, I have turned my attention to multimodal processing of socially relevant cues and multimodal integration processes. My aim is to characterize these processes in a comprehensive manner by

gathering evidence from behavioral tasks (understand behavior) and relate them to brain function (understand underlying biology). I approach this goal by using traditional psychology/neuropsychology methods as well as event related potential (ERP) methodology that provides an excellent temporal resolution and fMRI, which provides excellent spatial resolution. In collaborative efforts, I use both structural MRI, and Diffusion Tensor MRI for information on brain structure and connectivity in normal and clinical populations. A recent and exciting development is the addition of a genetic component to some of these investigations in order to understand how genes modulate cognitive function.

The studies that evolved from this theoretical and conceptual framework include several domains. Over the years I have used ERP and behavioral measures to examine semantic operations. My special focus has been on semantic memory operations in language disturbance in schizophrenia and schizotypal personality disorder (SPD), a disorder genetically related to schizophrenia. I hypothesized that fundamental abnormalities of language in schizophrenia resulted from failure to adequately use context and also from an over-activation of semantic networks. In a series of studies using both sentences and word-pairs I demonstrated that indeed there is an electrophysiological evidence for both over-activation in semantic networks and for abnormal use of context in the schizophrenia spectrum. Furthermore, I demonstrated that these abnormalities are most severe in chronic schizophrenia men and least severe in SPD women and thus they parallel clinical severity.

I have pursued questions of the structure of memory in schizophrenia. Studies in this domain include paradigms examining categorical processing of syllables using electrophysiological and behavioral data, categorical and associative priming of words, and processes related to categorization of abstract shapes. Preliminary analyses emerging from these studies suggested that 1) while processes related to processing sensory information about syllables are impaired in schizophrenia, categorical awareness of syllable boundaries exists; 2) associative priming is more impaired than categorical priming in schizophrenia and 3) both sensory aspects of category recognition and those related to retrieving categorical templates from memory are impaired in schizophrenia. The data from my NIMH R03-supported fMRI study of categorical and associative priming in schizophrenia suggest differences in brain areas activated both as a function of a type of semantic relationship (categorical or associative) and as a function of group (clinical or comparison) with more prefrontal activation observed in comparison subjects and more temporal activation observed in schizophrenia participants. Most recently, I have incorporated questions regarding the impact of emotion on the processes within semantic memory. The results of this investigation conducted by my doctoral student, A. Pinheiro, suggest that the positive affect broadens a set of available semantic associates and the negative affect narrows this set, with the effects detectable at around 300 msec after the onset of the target word.

Studies in cognitive control include Stroop effect with negative priming paradigm done both as an ERP investigation and, in a collaborative effort, as a diffusion tensor imaging (DTI) study. Preliminary results from the ERP Stroop suggest an impairment in negative priming which, as the DTI study suggests, may be attributable to both faulty inhibitory mechanisms and short term memory problems.

Within the domain of social cognition, I have initiated studies on social cognition that include processing faces in SPD, emotional processing in schizophrenia including the processing of prosody and the influence of emotional state on semantic processes (see above), studies on voice identity (self-other) recognition and multimodal processing of emotion from face and voice. Preliminary results from face processing study in SPD suggest that, like schizophrenia patients, SPD individuals show abnormal processes of face feature extraction likely leading to social difficulties. Prosody studies suggest that abnormalities in this domain include sensory processes of acoustic signal analysis as well as the categorizing the signal according to its emotional valence, and assigning an emotional meaning to the outputs of sensory analyses. In addition, these results suggest that both the semantic status of the acoustic signal and its complexity moderate the severity of the dysfunction. The multisensory studies of

affect processing from face and voice suggest that two classes of interactive processes: those related to featural face analysis and those related to emotion processing as supported by different brain systems produce the emotive experience. They also suggest that patients with schizophrenia process faces abnormally regardless whether they are presented by themselves or are accompanied by voice. Finally, establishment of voice identity was found to be associated with early sensory processes indexed by the N100 ERP; again patients were found to perform worse than healthy controls.

Following the evidence suggesting that the ability to recognize voice as self or other is related to several processes within auditory cortex which are found abnormal in schizophrenia and related to the experience of auditory hallucinations, we have designed a study that uses a real time fMRI feedback to modulate processes within the auditory cortex and thus to reduce the incidence of auditory hallucinations that are not amenable to medication.

As a parallel line of investigation, I have been involved in studies aiming to understand biological basis of schizophrenia. Both Center for Intervention Development and Applied Research (CIDAR) funding mechanism (P50) (CIDAR) “Longitudinal Assessment and Monitoring of Clinical Status and Brain Function in Adolescents and Adults” and North American Prodrome Longitudinal Study (NAPLS) initiative in which I played an active role as an investigator and a site PI for the ERP, respectively, resulted in a wealth of data that point to brain changes that predate first episode schizophrenia and indeed are present at the prodromal stage of the disease. These findings promise to influence approach to treatment in a profound way.

**Teaching:** In addition to my scientific activities, I have devoted substantial amount of time to teaching, mentoring and directing research activities working with students and fellows at several levels of educational advancement and at several research sites. These teaching activities have included weekly meetings with pre-doctoral, doctoral and post-doctoral students as well as visiting fellows regarding research projects stemming from each person’s individual interests. I have been lecturing to residents in Psychiatry, South Shore Harvard Medical School program and to post-Doctoral fellows in the Harvard Psychiatry Clinical Research Training Program. Since 2005 I have been a member of the Psychiatry Research Committee, Department of Psychiatry, Harvard Medical School. In that capacity I have been involved in promoting research activities throughout many institutions at Harvard Medical School. Since 2008 I have given lectures to Psychiatry residents as part of research elective. In addition, I have held presentations regarding internal review board procedures and informed consent procedures across different Harvard Medical School institutions. As a member of the Mysell Committee, I have participated in organizing the Harvard Psychiatry-wide Research Day activities and I have been a part of a judge panel charged with selecting the most promising presentation. In addition to these activities, as my CV indicated, I have acted as Advisor to both pre-doctoral and doctoral level students. Over the years of managing the laboratory, I have been a mentor and supervisor to thirty five research assistants. As my CV indicates, nineteen RAs developed and worked on specific projects that resulted in at least a poster presentation. While these research assistants work as staff, they also get extensive training in research methodology and techniques and participate in research projects. I thus teach as well as supervise their performance, and this teaching component constitutes an attractive feature of the Cognitive Neuroscience Laboratory for applicants from top colleges. Since 2006, as part of outreach to local community, I have been involved in teaching Neuroscience course in conjunction with Stonehill college, Easton. Finally, for several years now, I have functioned as a statistical consultant for grants and ongoing research projects throughout the laboratory.

**Administrative responsibilities:** In terms of my administrative responsibilities, I have directed and supervised research activities at the Cognitive Neuroscience Laboratory, Jamaica Plain, Boston VAMC since 1993 focusing on the study of schizotypal personality disorder. Since 1998, I have directed the Cognitive Neuroscience Laboratory at the VA Brockton Campus focusing on the studies of

schizophrenia. In 2008 I have established and directed a third site: the Cognitive Neuroscience Laboratory at Beth Israel Deaconess Medical Center focusing on the study of prodromal schizophrenia. As director and supervisor at all three sites, I initiate, coordinate and supervise all aspects of research activities and collaborations. Finally, since 1996 I have been a member of the VA Boston Healthcare System IRB.

## **B. Funding Information:**

### **Past Grant Support:**

1993-1997	NIMH RO1 MH 40799 <i>Title: Neurophysiological Studies of Schizophrenia (PI: R.W. McCarley)</i>	Co-Investigator
1993-1998	Veterans Administration Merit Review <i>Title: Neurophysiology of Behavior (PI: R.W. McCarley)</i>	Co-Investigator
1994-1995	The Livingston Fellowship Award <i>Title: Electrophysiological and Neuropsychological Measures of Cognitive Impairment in Schizotypal Personality Disorder.</i>	Principal Investigator
1994-1996	National Alliance for Research on Schizophrenia and Depression (NARSAD) Young Investigator Award. <i>Title: Event Related Potential Measures of Language Dysfunction in Schizophrenia.</i>	Principal Investigator
1994-1999	NIMH RO1 MH 52807 <i>Title: Biological Basis of Schizotypal Personality Disorder (PI: R.W. McCarley)</i>	Co-Investigator
1995-2000	VA Center for Basic and Clinical Neuroscience <i>Title: Neuroscience Studies of Schizophrenia</i>	Co-Investigator (PI: R.W. McCarley)
1998-2003	NIMH RO1 MH 40799 <i>Title: Neurophysiological Studies of Schizophrenia (PI: R.W. McCarley)</i>	Co-Investigator
2000-2004	VA Merit Award (shared) <i>Title: Cognitive Neuroscience Studies of Schizophrenia. [Co-Principal Investigator shared with P.G. Nestor, Ph.D.]</i>	Co-Principal Investigator
2000-2005	NIMH RO1 MH 52807 <i>Title: Biological Basis of Schizotypal Personality Disorder (PI: R.W. McCarley)</i>	Co-Investigator
2002-2007	NIMH RO1 MH 63360 <i>Title: Language Systems in Schizophrenia: Behavioral and ERP data.</i>	Principal Investigator

2002-2006	Research Enhancement Award Program (REAP) VA Medical Center <i>Title: Neuro-Imaging Studies of Schizophrenia. (PIs: R.W. McCarley/M.E. Shenton)</i>	Co-Investigator
2005-2007	Milton F. Fund Award <i>Title: Categorical Processing of Syllables in Schizophrenia</i>	Principal Investigator
2005-2010	NIMH RO1 MH 52807 <i>Title: Biological Basis of Schizotypal Personality Disorder (PI: R.W. McCarley)</i>	Co-Investigator
2007-2011	NIMH P50 MH080272 Program Project <i>Title: Vulnerability to Progression in Schizophrenia. (PI: R.W. McCarley)</i>	Investigator & ERP Site Director
2007-2011	VA Schizophrenia Center Grant <i>Title: Neuroimaging Insights into Schizophrenia &amp; Treatment Implications</i>  (PI: R.W. McCarley/Co-PI: M.E.Shenton)	Co-Investigator
2007-2009	NIMH R03 MH 078036 <i>Title: Semantic Knowledge and its Underlying Structures in Schizophrenia: an fMRI Study</i>	Principal Investigator
2009-2011	NARSAD	Investigator (PI: M. Shenton)
2007-2012	NIMH RO1 40799 <i>Title: Neurophysiology of Schizophrenia</i>	Co-Principal Investigator; (PI: Robert W McCarley)

**Current Grant Support:**

2008-2014	NIMH RO1 081928 <i>Title: Predictors and Mechanisms of Conversion to Psychosis,” or the North American Prodrome Longitudinal Study (NAPLS). Electrophysiological Core</i>	Overall PI: L. Seidman  Principal Investigator
1998-2014	Veterans Administration Merit Review: <i>Title: MRI Anatomy of Schizophrenia</i>	PI: Robert W. McCarley
2013-2015	NIMH R21MH094509 <i>Title: Real time fMRI feedback and auditory processing in schizophrenia</i>	Principal Investigator
2013-2018	International Grant: China, Shanghai  <i>Title: Validating Biomarkers for the Prodrome</i>	US site PI: Larry Seidman

	and Transition to Psychosis in Shanghai	Investigator
2014-2019	VA Merit: Neurophysiological and MRI Studies of Schizophrenia	PI: R.W. McCarley Investigator

### C. Report of Current Research Activities:

Current research activities include several ERP studies as well as a real time fMRI feedback study to reduce the incidence of auditory hallucination conducted in collaboration with MIT, and an fMRI study of prosody processing. The ERP studies focus on two broad themes: neural processes underlying social cognition and communication and biological basis of schizophrenia spectrum disorder that includes studies in chronic, first episode, and prodromal phases of schizophrenia. Studies within the first theme include ERP investigation of voice identity recognition, prosody processing across different levels of acoustic signal complexity and multimodal face-voice processing of incongruent information, and the ERP study of gamma processes related to priming. Studies within the second theme include studies of early auditory and visual processing in schizophrenia, and working memory processes in the auditory and visual modalities. In addition, I have been involved in MRI studies using manual parcellation of the parietal lobe and its subdivisions and the role these abnormalities play in schizophrenia pathology. The new line of research that is being developed includes a role of social cognition deficits in post-traumatic stress disorder and the possible remedial strategies to improve this condition.

### D. Report of Teaching:

*The Academy of Fine Arts, Wroclaw, Poland:* (English as a second language: Instructor)

1980-1985    Introductory English: grammar and vocabulary  
4 hours/week, four semesters per year  
40 graduate students

English Conversation: intermediate level  
6 hours/week, four semesters per year  
20 graduate students

English Essay: intermediate level  
4 hours/week, four semesters per year  
20 graduate students

English Conversation: advanced level  
6 hours/week, four semesters per year  
20 graduate students

English Writing: advanced level  
6 hours/week, four semesters per year  
25 graduate students

Technical Writing: advanced level  
4 hours/week, four semesters per year  
20 graduate students

English Grammar: advanced level  
6 hours/week, four semesters per year  
30 graduate students

*The Academy of Drama, Wroclaw, Poland: (English as a second language: Instructor)*

1981-1985 English grammar and vocabulary: introductory level  
5 hours/week, four semesters per year  
15 graduate students

English Communication: introductory level  
5 hours/week, four semesters per year; 15 graduate students

English Conversation: intermediate level  
5 hours/week, four semesters per year  
20 graduate students

Conversational English: advanced level  
5 hours/week, four semesters per year  
10 graduate students

Written English: intermediate level  
3 hours/week, four semesters per year  
10 graduate students

An Art of Writing in English: advanced level  
3 hours/week, four semesters per year

*State University of Virginia, Blacksburg, VA:*

1986-1987 Introductory Psychology, Psychology Department, State University of Virginia  
Teaching Fellow  
150 undergraduates  
10 hours/week for two semesters

1987-1988 Developmental Psychology, Psychology Department, State University of Virginia  
Teaching Fellow  
75 undergraduates  
10 hours/week for two semesters

*State University of New York at Stony Brook, Stony Brook, NY:*

1988-1989 Brain and Behavior, Psychology Department, SUNY at Stony Brook, NY  
Teaching Fellow  
80 undergraduates  
10 hours/week for two semesters

1989 Introductory Psychology, Psychology Department, SUNY at Stony Brook, NY  
Spring Teaching Fellow

- 120 undergraduates  
10 hours/week for two semesters
- 1989  
Summer Cognitive Psychology, Psychology Department, SUNY at Stony Brook, NY  
Lecturer  
50 undergraduates  
20 hours/week
- 1989-1990 Physiological Psychology, Psychology Department, SUNY at Stony Brook, NY  
Teaching Fellow  
80 undergraduates  
10 hours/week for two semesters
- 1990  
Summer Cognitive Psychology, Psychology Department, SUNY at Stony Brook, NY  
Lecturer  
50 undergraduates  
20 hours/week
- Developmental Psychology, Psychology Department, SUNY at Stony Brook, NY  
Lecturer  
50 undergraduates  
20 hours/week
- 1990-1991 Experimental Methodology, Psychology Department, SUNY at Stony Brook, NY  
Lecturer  
50 undergraduates  
10 hours/week for two semesters
- 1991  
Summer Brain and Behavior, Psychology Department, SUNY at Stony Brook, NY  
Lecturer  
50 undergraduates  
20 hours/week
- 1991  
Summer Social Psychology, Psychology Department, SUNY at Stony Brook, NY  
Lecturer  
60 undergraduates  
20 hours/week
- 1991-1992 Cognitive Psychology, Psychology Department, SUNY at Stony Brook, NY  
Teaching Fellow  
80 undergraduates  
10 hours/week for two semesters
- Harvard Medical School:*
- 1993-1996 Lecturer, Neuroscience Seminar Series, Residency Training Program, Department of Psychiatry, Harvard Medical School, VAMC-Brockton, MA. Responsible for preparing and delivering lectures on cognitive function in schizophrenia.

- 1994- Clinical Research Advisor for Visiting Scholars in the Department of Psychiatry, Harvard Medical School (Mentoring and assisting scholars on research projects; 3 hours/week).
- 1999- Clinical Research Advisor for Post-Doctoral Fellows in the Department of Psychiatry, Harvard Medical School. (Mentor and assist post-doctoral fellows on their research projects; 5-10 hours/week).
- 2003- Member of the Mysell Day Research Committee  
2004- Member of the Harvard Medical School Psychiatry Research Committee
- 2005- Clinical Research Training Program, Harvard Medical School, Preceptor

*VA Boston Healthcare System/Harvard Medical School:*

- 2008- member of the Pathways to Research Steering Committee for South Shore Psychiatry Training Program

*Stonehill College:*

- 2006- Seminar in clinical neuroscience.

*Other Advisory and Supervisory Roles:*

*Preceptor:*

- 1991-1994 Hiroto Hokama, M.D., Ph.D., Research Fellow, Visiting Scholars Program, Clinical Neuroscience Division, Laboratory of Neuroscience, Department of Psychiatry, Harvard Medical School (received the Neal Mysell Award, 1994, for most outstanding poster presentation at the Second Annual Research Day, Department of Psychiatry, Harvard Medical School); Advisory role in ERP and statistical training. (Currently Assistant Professor, Department of Psychiatry, University of Ryukyu, Okinawa).
- 1994-1995 Hirokazu Ohta, M.D., Ph.D., Research Fellow, Visiting Scholars Program, Clinical Neuroscience Division, Laboratory of Neuroscience, Department of Psychiatry, Harvard Medical School. Advisory role in ERP and statistical training. (Currently Assistant Professor, Department of Psychiatry, University of Ryukyu, Okinawa).
- 1995-1998 Jun Soo Kwon, M.D., Ph.D., Visiting Assistant Professor, Visiting Scholars Program, Clinical Neuroscience Division, Laboratory of Neuroscience, Department of Psychiatry, Harvard Medical School. Advisory role in ERP and statistical training. (Currently, Assistant Professor, Department of Psychiatry, University of Seoul, South Korea, where he has received the Paul Janssen Schizophrenia Award from the Korean Neuropsychiatric Association, October, 2000, for his work in schizophrenia.)
- 1995-1997 Paola Mazzoni, Medical Student from the University of Chicago. Currently, the third year of Psychiatry Residency training at Massachusetts General Hospital, Harvard Medical School. (Resident in Psychiatry at Massachusetts General Hospital, Harvard Medical School, Boston, MA, and completed residency training at Duke University School of Medicine, Durham, NC, and is currently completing a fellowship in Child

Psychiatry at the Columbia University College of Physicians and Surgeons.)

- 1999-2004 Marek R. Kubicki, M.D., Ph.D., Visiting Assistant Professor, Visiting Scholars Program, Clinical Neuroscience Division, Laboratory of Neuroscience, Department of Psychiatry, Harvard Medical School (supported by a fellowship from the Kosciuszko Foundation, Poland, and from NIMH funds; received the Neal Mysell Award, 2000, for most outstanding poster presentation at the Eighth Annual Research Day, Department of Psychiatry, Harvard Medical School). Advisory function in cognitive psychology methods and statistics. (Currently Assistant Professor at Department of Psychiatry, Harvard Medical School.)
- 1999-2000 Khang Uk Lee, Ph.D., Visiting Assistant Professor, Visiting Scholars Program, Clinical Neuroscience Division, Laboratory of Neuroscience, Department of Psychiatry, Harvard Medical School (supported through funds from The Catholic University of Korea, and from NIMH funds). Advisory role in ERP and statistical training. (Currently Associate Professor of Psychiatry, The Catholic University Medical College, Seoul, Korea.)
- 1999- 2002 Kevin Spencer, Ph.D., Post-Doctoral Research Fellow, Clinical Research Training Program in Biological Psychiatry, Laboratory of Neuroscience, Department of Psychiatry, Harvard Medical School. (Currently, Associate Professor at Psychiatry, Harvard Medical School).
- 2001-2002 Xiangyang Li, M.D., Ph.D., Research Fellow in the Clinical Research Training Program in Biological Psychiatry, Clinical Neuroscience Division, Laboratory of Neuroscience, Department of Psychiatry, Boston VA Healthcare System, and Harvard Medical School (VA Postdoctoral Fellowship in Neuropsychiatry Research/Neurosciences 2002-2005.) (Currently in private practice, Boston).
- 2000-2002 Toshiaki Onitsuka, M.D., Ph.D., Research Fellow, Visiting Scholars Program, Clinical Neuroscience Division, Laboratory of Neuroscience, Department of Psychiatry, Harvard Medical School (supported through funds from Kyushu University Medical School, Fukuoka, Japan). (Currently staff member at Fukuoka Prefectural Dazaifu Hospital Psychiatric Clinic and Assistant Professor and Director, Psychiatry Neurophysiology Laboratory, Department of Neuropsychiatry, Graduate School of Medical Sciences, Kyushu University.)
- 2002-2004 Sylvina Monchie, Ph.D., pre-doctoral student, University of Massachusetts, Boston; In addition, an advisor to Dr Munchie's doctoral dissertation. Currently, clinical psychologist in California.
- 2003-2004 Duke Han, pre-doctoral student, University of Massachusetts, Boston. (Currently, Assistant Professor at Loyola University, Chicago.)
- 2003-2004 Rakibul Mannan, Ph.D. Research Fellow, Visiting Scholars Program, Clinical Neuroscience Division, Laboratory of Neuroscience, Department of Psychiatry, Harvard Medical School. (Currently, mental health coordinator, Toronto, Canada)

- 2004-2004 Takeshi Yoshida, M.D., Visiting Research Fellow, Visiting Scholars Program, Clinical Neuroscience Division, Laboratory of Neuroscience, Department of Psychiatry, Boston VA Healthcare System, and Harvard Medical School, visiting from National Defense Medical School, Saitama, Japan. (Currently Visiting Researcher, Department of Psychiatry, Yokohama City University School of Medicine, Yokohama, Japan.)
- 2005-2007 Christopher AhnAllen, an advisor to C. AhnAllen doctoral thesis. (Currently post-doctoral student at Brown University, soon to join Boston VA Medical Center as staff neuropsychologist).
- 2005-2007 Joel Snyder, Ph.D. Clinical Research and Training Program, Harvard Medical School, preceptor. (Currently, Assistant Professor at Nevada State University, Las Vegas).
- 2005-2007 Tsuyoshi Araki, M.D., Visiting Research Fellow, Medical School, Kyoto, Japan (Currently, Instructor, University of Tokyo).
- 2007-2008 Marina Bontkowski, advisor to Undergraduate Honors Thesis, Harvard University. (BA student at Harvard).
- 2007-2008 Moneesh S. Mittal, MD, Visiting Research Fellow, currently in the third year residency program at the University of Kansas
- 2008-2010 Tatiana Sitnikova, Clinical Research and Training Program, Harvard Medical School, preceptor; current project: social scene congruence processing in schizotypal personality disorder individuals.
- 2010- Ana Pinheiro, Ph.D. post-doctoral student; advisor for Dr. Pinheiro post-doctoral studies. The projects include prosody processing, MMN and P300 with prosody, voice self and other processing
- 2009-present Elisabetta Del Rei, Ph.D. Instructor. Mentor to Dr. Del Rei on ERP studies of auditory processing in schizophrenia and prodromal individuals.
- 2010-2012 Taosheng Liu, MD. First Military University, Shanghai, China; advisor on the Ph.D. doctoral thesis: multisensory processes abnormalities in schizophrenia.
- 2009-2010 Toshihiko Maikawa, MD, Ph.D. Kyushu University, Fukuoka, Japan
- 2011-present Yoji Hirano, Ph.D. Visiting Research Fellow, Kyushu University, Fukuoka, Japan.
- 2011-present Naoya Oribe, MD. Visiting Research Fellow, Kyushu University, Fukuoka, Japan.
- 2013-2014 Wei Dong, MA, First Military University, Shanghai, China; multisensory integration deficits in schizophrenia
- 2014 April to Olena Kleschova, MA, University of Helsinki. Auditory Hallucinations in schizophrenia.

2014 August

*Thesis advisor:*

- 2006 SD Han: Semantic processing in schizophrenia: Advisor to a thesis presented in partial fulfillment of the requirement for Doctoral degree at the University of Massachusetts Boston,
- 2007 Christopher Ahn-Allen: Nicotine effects of neurocognitive performance in schizophrenia. Advisor to a thesis presented in partial fulfillment of the requirement for Doctoral degree at the University of Massachusetts Boston,
- 2009 Ana Pinheiro, advisor to A. Pinheiro doctoral thesis; emotional modulation of semantic processes as indexed with ERP components and prosodic processing in schizophrenia.
- 2011 Taosheng Liu. Multisensory processing in schizophrenia. Advisor to a thesis presented in partial fulfillment of the requirement for Doctoral degree at the Second Military University, Shanghai, China.
- 2012 Rachael Degabriele: Emotional processing in schizophrenia using event related potentials. Advisor to a thesis presented in partial fulfillment of the requirement for Doctoral degree at the University of Western Australia.
- 2013 Jessica Zuo: Clinical and neuropsychological correlates of diffusion tensor imaging indices in first-episode schizophrenia. A statistical advisor to the thesis presented in partial fulfillment of BA requirement at Harvard University.
- 2013 Victoria Choate Hasler: A Model Of Social Functioning In Schizophrenia: Symptomatology, Personality, And Brain Region Volumes. An advisor to a thesis presented in partial fulfillment of the requirement for Masters degree at the University of Massachusetts Boston
- 2014 Olena Kleshchova: Auditory Hallucinations in schizophrenia. An advisor to a MA thesis in partial fulfillment of the requirement for Masters degree at the University of Helsinki.

*Independent Study Supervision of Undergraduates:*

- 1994-1995 Edy Gerhity, Wellesley College  
Maria van Der Pahlen - Brockton VAMC  
(First Author on abstracts)
- 1995-1996 Monica Harlow, Wellesley College  
Maaïke van Ingen - Brockton VAMC  
(First Author on abstracts)

- 1996-1997 Kerry Farmer, Wellesley College  
(First Author publication - see CV)
- 1998 - 1999 Brett Rutherford – MMHC  
(First Author on abstracts)
- 1998-1999 John-Paul Pepper, Brown University  
(First Author on abstracts)

Supervision of Research Assistants:

The RA's listed below are those whose contributions to research are documented in my CV and who made significant contributions to research while at the laboratory (papers and abstracts on which they appear noted in brackets.)

- 1993-1994 Matthew Kimble, Brockton VAMC: worked on the study of semantic activation in schizophrenia (paper # 4 and # 14).
- 1993-1994 Lloyd Smith, Brockton VAMC: worked on the study of auditory and visual language processing in schizophrenia (Paper # 3)
- 1994-1996 Maria Karapelou, VAMC: worked on the study of language processing in schizophrenia (Paper # 3)
- 1993-1994 Sue Law, Brockton VAMC: worked on the study of auditory and visual language assessment in schizophrenia (Paper # 3).
- 1995- 1996 Richard Rhoads, MMHC: worked on the study of MRI abnormalities in SPD and on ERP study of P3 deficit in SPD (Paper # 6 and # 15)
- 1995-1996 Paula Mazzoni, MMHC: worked on language dysfunction in SPD, currently a fellow in psychiatry, Columbia University)
- 1996-1997 Sare Akdag, VAMC: worked on the study of word recall in schizophrenia and the study of startle reflex in schizophrenia (Paper # 5 and # 22)
- 1996- 1998 Engkeat Teh, MMHC: worked on the studies of temporal lobe abnormalities in SPD, language abnormality in SPD, and P3 abnormality in SPD (Papers # 6, # 10, and # 15).
- 1998- 2000 Jonathan Sutton, MMHC: worked on the study of context processing in SPD and on the study of clozapine effect on P3 in schizophrenia (Papers # 28 and # 35)
- 1999-2000 Alaika Pellock, Brockton VAMC
- 1999-2002 Christopher Allen, VAMC: worked on the study of semantic dysfunction in female SPD, retrieval induced processing in schizophrenia, and nicotine modulation of cognitive function in schizophrenia (Papers # 21, # 34 and # 50)
- 2002-2004 Lisa Lucia, Boston VAMC: worked on the study of structural perception of faces in schizophrenia (Paper # 39)
- 2002-2004 Meredith Klump, Boston VAMC: worked on the study of neural synchrony abnormalities in schizophrenia (Paper # 30)
- 2004-2007 Elizabeth Lewis, Boston VAMC: worked on the study of inhibitory deficits in schizophrenia and on the study of categorical and associative priming in schizophrenia (Abstract # 2)
- 2007-2007 Sarah Lavalley, Jamaica Plain VAMC: worked on the study of prosody abnormalities in SPD using fMRI, the study of category formation in SPD, and the study of superior sulcus abnormalities in SPD (Abstract # 3).
- 2007-2010 Rayna Zack, Jamaica Plain VAMC: worked on the project of face processing in SPD

(Abstract # 4)

- 2008-2010 Laura Bobrow, BHW, PNL: worked on the project of semantic processing using fMRI
- 2010-2012 Nathaniel Shreiber, Boston VAMC, worked on reward system project using ERP
- 2011-2012 Israel Molina, Boston VAMC, worked on P300 prosody processing study

*Summer Internships supported by the Stanley Scholars Program (Senior Mentor: Martha E. Shenton, Ph.D.; primary preceptor, M. Niznikiewicz)*

<u>Year:</u>	<u>Student</u>
1997	Sarah Delong Alexander Wolfe
1999	Jon-Paul Pepper
2000	Michele Friedman
2002	Olga Valdman
2003	Jessica Santiccioli
2003	Ruth Perlmutter
2004	Jenna Horani

#### **Regional Contributions:**

- 2004 “Imaging in Schizophrenia”, Massachusetts Medical School, Worcester, MA.
- 2007 “Language Dysfunction in Schizophrenia”, Psychiatry Imaging Laboratory, Brigham and Women Hospital, Boston

#### **National Contributions:**

- 2000 “P3 as an Index of Neuro-Cognitive Function in Drug Addiction in Schizophrenia”, the 153<sup>nd</sup> Annual Meeting of the American Psychiatric Association, Chicago, IL
- 2003 “Language Dysfunction in Schizophrenia Spectrum Disorders” Puerto Rico, satellite workshop on language in schizophrenia, ACNP annual convention
- 2007 “Schizophrenia - Structural and Functional Abnormalities”, Society for Neuroscience, San Diego.
- 2008 “Abnormal Memory Structure in Schizophrenia”, University of Mississippi Medical Center, Jackson.
- 2012 “Coordinated Neural Activity Supporting Cognitive Processes” A satellite symposium of the 42<sup>nd</sup> annual meeting of the Society for Neuroscience; New Orleans, LA; discussant
- 2013 “Social Cognition Abnormalities in Schizophrenia” Bloomington, ID, invited talk.

#### **International Contributions:**

- 1998 “N400 and Schizophrenia Spectrum Disorders”, the XIIth International Congress of Event-Related Potentials of the Brain (EPIC XII), Cambridge, MA

“Neurophysiological and Structural MRI studies of Schizophrenia”, the XIIth International Congress of Event-Related Potentials of the Brain (EPIC XII), Cambridge, MA

- 1999 “Auditory P3 Deficit in Schizotypal Personality Disorder”, International Congress of Schizophrenia Research, Santa Fe, NM
- 2004 “Language Dysfunction in Schizophrenia Spectrum Disorders”, International Conference of Electrophysiology, Thessaloniki, Greece
- 2006 “Language Dysfunction in Schizophrenia”, International Society of Electrophysiological Research, Boston.
- 2006 “Semantic Abnormalities in Schizophrenia”, Institute for Schizophrenia Research, Ottawa, Canada
- 2010 Functional Indices of Language Processes. University of Minho, Portugal
- 2011 From the analysis of social scene coherence to probing the structure of semantic networks: new approaches to studying semantic abnormalities in schizophrenia.” EPIC, the XIII International Congress, Bloomington, Indiana
- 2012 “Processing information from face and voice in schizophrenia” SIRS, Florence, Italy
- 2012 “Communication and Communication Dysfunction” invited lecture: Neuronus, 5<sup>th</sup> Cognitive Neuroscience Conference, Cracow, Poland.
- 2013 “Schizophrenia as a disorder of communication” – invited lecture: Second Medical Military Academy, Shanghai, China
- 2013 “ERP abnormalities in prodromal and first episode individuals” – invited lecture: Shanghai Mental Health Center, Shanghai, China.

### **Part III: Bibliography:**

#### **Original Papers:**

1. **Niznikiewicz MA**, Squires NK. Phonological processes and the use of strategy in silent reading: electrophysiological and behavioral evidence. *Brain Lang* 1996;52(2):342-364.
2. McCarley RW, O'Donnell BF, **Niznikiewicz MA**, Salisbury DF, Potts GF, Hirayasu Y, Nestor PG, Shenton ME. Update on electrophysiology. *Intern Rev Psychiatry* 1997;9:373-386.
3. **Niznikiewicz MA**, O'Donnell BF, Nestor PG., Smith, L, Law S, Karapelou ME, Shenton M, McCarley, RW. ERP assessment of visual and auditory language processing in schizophrenia. *J Ab Psychol* 1997;106:85-94.
4. Nestor PG, Kimble M., O'Donnell BF, **Niznikiewicz MA.**, Shenton, ME, McCarley, RW. Aberrant semantic activation in schizophrenia: A neuropsychological study. *Am J Psychiatry* 1998;154:640-646.
5. Nestor PG, Akdag SJ, O'Donnell BF, **Niznikiewicz MA**, Law S, Shenton ME, McCarley RW. Word recall in schizophrenia: Connectionist model. *Am J Psychiatry* 1998;155:1685-1690.
6. Dickey CC, McCarley RW, Voglmaier MM, **Niznikiewicz MA**, Seidman LJ, Hirayasu Y, Fischer IA, Teh EK, Van Rhoads R, Jakab M, Kikinis R, Jolesz FA, Shenton ME. Schizotypal

personality disorder and MRI abnormalities of temporal lobe gray matter. *Biol Psychiatry* 1999;45:1393-1402.

7. O'Donnell BF, McCarley RW, Potts GF, Salisbury DF, Nestor PG, Hirayasu Y, **Niznikiewicz MA**, Wible CG, Barnard J, Bookstein F, Shenton ME. Identification of neural circuits underlying P300 abnormalities in schizophrenia. *Psychophysiology* 1999;36:388-398.
8. McCarley RW, **Niznikiewicz MA**, Salisbury DF, Nestor PG, O'Donnell BF, Hirayasu Y, Grunze H, Greene RW, Shenton ME. Cognitive dysfunction in schizophrenia: unifying basic research and clinical aspects. *European Arch Psychiatry Clin Neurosci* 1999;249(suppl.4):IV/69-IV/82.
9. Nestor PG, O'Donnell BF, **Niznikiewicz MA**, Shenton ME, McCarley RW. Neuromodulation of attention in schizophrenia. *Psychiatr Ann* 1999;29:633-640.
10. **Niznikiewicz MA**, Shenton ME, Voglmaier M, Seidman L, Dickey C, Rhodes R., Teh, K. McCarley RW. Electrophysiological correlates of language processing in schizotypal personality disorder. *Am J Psychiatry* 1999;156:1052-1058.
11. O'Donnell BF, McCarley RW, Potts GF, Salisbury DF, Nestor PG, Hirayasu Y, **Niznikiewicz MA**, Barnard J, Shen ZJ, Weinstein DM, Bookstein F, Shenton ME. Identification of neural circuits underlying P300 abnormalities in schizophrenia. *Psychophysiology* 1999;36:388-398.
12. Dickey CC, Shenton ME, Hirayasu Y, Fischer IA, Voglmaier MM, **Niznikiewicz MA**, Seidman LJ, Fraone S, McCarley RW. Large CSF volume not attributable to ventricular volume in schizotypal personality disorder *Am J Psychiatry* 2000;157:48-57.
13. Farmer CM, O'Donnell BF, **Niznikiewicz MA**, Voglmaier MM, McCarley RW, Shenton ME. Visual perception and working memory in schizotypal personality disorder. *Am J Psychiatry* 2000;157:781-786.
14. Kimble MO, Lyons MJ, O'Donnell BF, Nestor PG, Cronin-Golomb, **Niznikiewicz MA**, Toomy R. The effect of family status in schizotypal traits on electrophysiological measures of attention and semantic processing. *Biol Psychiatry* 2000;47(5):402-412.
15. **Niznikiewicz MA**, Voglmaier MV, Shenton ME, Dickey CC, Seidman LJ, Teh E, Rhoads RV, McCarley RW. Lateralized P3 deficit in schizotypal personality disorder. *Biol Psychiatry* 2000; 48(7):702-705.
16. **Niznikiewicz MA**, Donnino RR. McCarley RW, Nestor PG, Iosifescu DV, O'Donnell BF, Shenton ME. Abnormal angular gyrus asymmetry in schizophrenia. *Am J Psychiatry* 2000;157:428-437.
17. Voglmaier MM, Seidman LJ, **Niznikiewicz MA**, Dickey CC, Shenton ME, McCarley, RW. Verbal and nonverbal neuropsychological test performance in schizotypal personality disorder. *Am J Psychiatry* 2000;157:787-793.
18. Nestor PG, Han SD, **Niznikiewicz MA**, Salisbury D, Spencer K, Shenton ME, McCarley RW. Semantic disturbance in schizophrenia and its relationship to the cognitive neuroscience of attention. *Biol Psychology* 2001;57:23-46.

19. Levitt JJ, McCarley RW, Dickey CC, Voglmaier MM, **Niznikiewicz MA**, Seidman LJ, Hirayasu Y, Ciszewski AA, Kikinis R, Jolesz FA, Shenton ME. MRI study of caudate nucleus volume and its cognitive correlates in neuroleptic-naive patients with schizotypal personality disorder. *Am J Psychiatry* 2002;159:1190-1197.
20. Nestor PG, O'Donnell BF, McCarley RW, **Niznikiewicz MA**, Barnard J, Jen Shen Z, Bookstein FL, Shenton ME. A new statistical method for testing hypotheses of neuropsychological/MRI relationships in schizophrenia: partial least squares analysis. *Schizophr Research* 2002;53: 57-66.
21. **Niznikiewicz MA**, Shenton ME, Voglmaier M, Nestor PG, Dickey CC, Frumin M, Seidman LJ, Allen CG, McCarley MW. Semantic dysfunction in females with schizotypal personality disorder. *Am J Psychiatry* 2002;159(10):1767-1774.
22. Akdag S, Nestor PG, O'Donnell BF, **Niznikiewicz MA**, Shenton M.E. The startle reflex in schizophrenia. Habituation and personality correlates. *Schizophr Research* 2003;64(2-3):165-173.
23. Dickey CC, McCarley RW, Voglmaier MM, **Niznikiewicz MA**, Seidman LJ, Demeo S, Frumin M, Shenton, ME. An MRI study of superior temporal gyrus volume in women with schizotypal personality disorder. *Am J Psychiatry* 2003;160(12):2198-2201.
24. Dickey CC, McCarley RW, Voglmaier MM, **Niznikiewicz MA**, Seidman LJ, Frumin M, Toner S, Demeo S, Shenton ME. An MRI study of fusiform gyrus in schizotypal personality disorder. *Schizophr Research* 2003;64(1):35-39.
25. Han SD, Nestor PG, Shenton ME, **Niznikiewicz MA**, Hannah G, McCarley RW. Associative memory in chronic schizophrenia: A computational model. *Schizophr Research* 2003;61(2-3):255-263.
26. Spencer KM, Nestor PG, **Niznikiewicz MA**, Salisbury DF, Shenton ME, McCarley RW. Abnormal neural synchrony in schizophrenia. *J Neurosci* 2003;23(19):7407-7411.
27. Nestor PG, Kubicki M, Gurrera RJ, **Niznikiewicz MA**, Frumin M, McCarley RW, Shenton, ME. Neuropsychological correlated of diffusion tensor imaging in schizophrenia. *Neuropsychology* 2004;18(4):629-637.
28. **Niznikiewicz MA**, Friedman M, Shenton ME, Voglmaier M, Nestor PG, Frumin M, Seidman LJ, Sutton J, McCarley RW. Processing sentence context in women with schizotypal personality disorder; An ERP study. *Psychophysiology* 2004;41(3):367-371.
29. Park HJ, Westin C-F, Kubicki M, Maier SE, **Niznikiewicz MA**, Frumin M, Kikinis R, Jolesz FA, McCarley RW, Shenton ME. White matter hemisphere asymmetries in healthy subjects and in schizophrenia: A diffusion tensor MRI study. *Neuroimage* 2004;23(1):213-223.
30. Spencer KM, Nestor PG, Perlmutter R, **Niznikiewicz MA**, Klump MC, Frumin M, Shenton ME, McCarley RW. Neural synchrony indexes disordered perception and cognition in schizophrenia. *Proc Natl Acad Sci USA* 2004;101:17288-17293.

31. Dickey CC, McCarley RW, **Niznikiewicz MA**, Voglmaier MM, Seidman LJ, Kim S, Shenton ME. Clinical, cognitive, and social characteristics of a sample of neuroleptic-naïve persons with schizotypal personality disorder. *Schizophr Res* 2005;78(2-3):297-308.
32. Kubicki M, Park H, Westin CF, Nestor PG, Mulkern RV, Maier SE, **Niznikiewicz MA**, Connor EE, Levitt JJ, Frumin M, Kikinis R, Jolesz FA, McCarley RW, Shenton ME. DTI and MTR abnormalities in schizophrenia: Analysis of white matter integrity. *Neuroimage* 2005; 26(4):1109-1118.
33. Nakamura M, McCarley RW, Kubicki M, Dickey CC, **Niznikiewicz MA**, Voglmaier MM, Seidman LJ, Maier SE, Westin CF, Kikinis R, Shenton ME. Fronto-Temporal Disconnectivity in Schizotypal Personality Disorder: A Diffusion Tensor Imaging Study. *Biol Psychiatry* 2005;58(6):468-478.
34. Nestor PG, Piech R, Allen C, **Niznikiewicz MA**, Shenton ME, McCarley RW. Retrieval-induced forgetting in schizophrenia. *Schizophr Research* 2005;75(2-3):199-209.
35. **Niznikiewicz MA**, Patel JK, McCarley RW, Sutton J, Chau DT, Wojcik J, Green AI. Clozapine action on auditory P3 response in schizophrenia. *Schizophr Research* 2005;76(1):119-121.
36. Onitsuka T, Nestor PG, Gurrera RJ, Shenton ME, Kasai K, Frumin M, **Niznikiewicz MA**, McCarley RW. Association between reduced extraversion and right posterior fusiform gyrus gray matter reduction in chronic schizophrenia. *Am J Psychiatry* 2005;162(3):599-601.
37. Voglmaier MM, Seidman LJ, **Niznikiewicz MA**, Dickey CC, Shenton ME, McCarley RW. A comparative profile analysis of neuropsychological function in men and women with schizotypal personality disorder. *Schizophr Research* 2005;74(1):43-49.
38. Han SD, Spencer MH, Kubicki M, **Niznikiewicz MA**, Jolesz FA, McCarley RW, Nestor PG. Connectivity among semantic associates: an fMRI study of semantic priming. *Brain Lang* 2006;97:294-305.
39. Onitsuka T, **Niznikiewicz MA**, Spencer KM, Frumin M, Kuroki N, Lucia LC, Shenton ME, McCarley RW. Functional and structural deficits in brain regions sub-serving face perception in schizophrenia. *Am J Psychiatry* 2006; 163(3):455-62.
40. Wible CG, Han SD, Spencer MH, Kubicki M, **Niznikiewicz MA**, Jolesz FA, McCarley RW, Nestor PG. Connectivity among semantic associates: an fMRI study of semantic priming. *Brain Lang* 2006;97(3):294-305.
41. Kuroki N, Kubicki M, Nestor PG, Salisbury DF, Park HJ, Levitt JJ, Woolston S, Frumin M, **Niznikiewicz MA**, Westin CF, Maier SE, McCarley RW, Shenton ME. Fornix integrity and hippocampal volume in male schizophrenic patients. *Biol Psychiatry* 2006;60(1):22-31.
42. Koo MS, Levitt JJ, McCarley RW, Seidman LJ, Dickey CC, **Niznikiewicz MA**, Voglmaier MM, Zamani P, Long KR, Kim SS, Shenton ME. Reduction of caudate nucleus volumes in neuroleptic-naïve female subjects with schizotypal personality disorder. *Biol Psychiatry*

2006;60(1):40-48.

43. Nestor PG, Valdman O, **Niznikiewicz MA**, Spencer K, McCarley RW, Shenton ME. Word priming in schizophrenia: Associational and semantic influences. *Schizophr Res* 2006;82, 139-142.
44. Dickey CC, McCarley RW, Xu ML, Seidman LJ, Voglmaier MM, **Niznikiewicz MA**, Connor E, Shenton ME. MRI abnormalities of the hippocampus and cavum septi pellucidi in females with schizotypal personality. *Schizophr Res* 2007;89(1-3):49-58.
45. Nakamura M, Nestor PG, McCarley RW, Levitt JJ, Hsu L, Kawashima T, **Niznikiewicz MA**, Shenton ME. Altered orbito-frontal sulco-gyral pattern in schizophrenia. *Brain* 2007; 130:693-707.
46. Nestor PG, Kubicki M, Spencer KM, **Niznikiewicz MA**, McCarley RW, Shenton ME. Attentional networks and cingulum bundle in chronic schizophrenia. *Schizophr Res* 2007;90(1-3):308-315.
47. Nestor PG, Kubicki M, Kuroki N, Gurrera, RJ, **Niznikiewicz MA**, Shenton ME, McCarley RW. Episodic Memory and Neuroimaging in Hippocampus and Fornix in Chronic Schizophrenia. *Psychiatry Res* 2007;155(1):21-28.
48. Gurrera RJ, Nakamura M, Kubicki M, Dickey CC, **Niznikiewicz MA**, Voglmaier MM, McCarley RW, Shenton ME, Westin CF, Maier SE, Seidman LJ. The uncinate fasciculus and extraversion in schizotypal personality disorder: a diffusion tensor imaging study. *Schizophr Res* 2007 Feb;90(1-3):360-2.
49. Nestor PG, Onitsuka T, Gurrera R, **Niznikiewicz MA**, Shenton ME, McCarley RW. Dissociable contributions of MRI reductions of superior temporal and fusiform gyri to symptoms and neuropsychology in schizophrenia. *Schizophr Res* 2007, 91, 103-106
50. Ahnallen CG, Nestor PG, Shenton ME, McCarley RW, **Niznikiewicz MA**. Early nicotine withdrawal and transdermal nicotine effects on neurocognitive performance in schizophrenia. *Schizophr Res* 2007, Sept 18.
51. Spencer KM, **Niznikiewicz MA**, Shenton ME, McCarley RW. Sensory-evoked gamma oscillations in chronic schizophrenia. *Biol Psychiatry*, December 14.
52. **Niznikiewicz, MA**. Future directions for examining semantic memory in schizophrenia spectrum disorders. *Clin EEG Neurosci*. 2008 Apr;39(2):95-8.
53. Dickey CC, Morocz IA, **Niznikiewicz MA**, Voglmaier M, Toner S, Khan U, Dreusicke M, Yoo SS, Shenton ME, McCarley RW. Auditory processing abnormalities in schizotypal personality disorder: An fMRI experiment using tones of deviant pitch and duration. *Schizophr Res*. 2008 Jun 12.
54. Rosenberger G, Kubicki M, Nestor PG, Connor E, Bushell GB, Markant D, **Niznikiewicz MA**, Westin CF, Kikinis R, J Saykin A, McCarley RW, Shenton ME. Age-related deficits in fronto-temporal connections in schizophrenia: A diffusion tensor imaging study. *Schizophr Res*. 2008 Jul;102(1-3):181-8.
55. Nestor PG, Kubicki M, **Niznikiewicz MA**, Gurrera RJ, McCarley RW, Shenton ME.

Neuropsychology. 2008 Mar;22(2):246-54. Neuropsychological disturbance in schizophrenia: a diffusion tensor imaging study.

56. Fitzsimmons J, Kubicki M, Smith K, Bushell G, Estepar RS, Westin CF, Nestor PG, **Niznikiewicz MA**, Kikinis R, McCarley RW, Shenton ME. Diffusion tractography of the fornix in schizophrenia. *Schizophr Res*. 2009 Jan;107(1):39-46.
57. Lee K, Yoshida T, Kubicki M, Bouix S, Westin CF, Kindlmann G, **Niznikiewicz M**, Cohen A, McCarley RW, Shenton ME. Increased diffusivity in superior temporal gyrus in patients with schizophrenia: A Diffusion Tensor Imaging study. *Schizophr Res*. 2009 Jan 8.
58. **Niznikiewicz MA**, M. Singh Mittal, PG Nestor, RW. McCarley. Abnormal inhibitory processes in semantic networks in schizophrenia. *International Journal of Psychophysiology*. 2009, October 17.
59. **Niznikiewicz MA**, Spencer KM, Dickey C, Voglmaier M, Seidman LM, Shenton ME, McCarley RW . Abnormal pitch mismatch negativity in individuals with schizotypal personality disorder. *Schizophrenia Research*. 2009 May 110(1-3), 188-93.
60. Levitt JJ, Styner M, Niethammer M, Bouix S, Koo MS, Voglmaier MM, Dickey CC, **Niznikiewicz MA**, Kikinis R, McCarley RW, Shenton ME. Shape abnormalities of caudate nucleus in schizotypal personality disorder. *Schizophr Res*. 2009 May 110 (1-3) 127-139.
61. Kubicki M, **Niznikiewicz MA**, Connor E, Ungar L, Nestor PG, Bouix S, Dreusicke M, Kikinis R, McCarley RW, Shenton ME. Relationship Between White Matter Integrity, Attention, and Memory in Schizophrenia: A Diffusion Tensor Imaging Study. *Brain, Imaging and Behavior*. 2009. DOI10.1007/s11682-009-9061-8.
62. Onitsuka, T, Spencer KM, Lucia LC, Shenton ME, McCarley RW, **Niznikiewicz MA**. Abnormal Asymmetry of the Face N170 Repetition Effect in Male Patients with Chronic Schizophrenia. *Brain, Imaging and Behavior*. In Press.
63. Yoshida T, McCarley RW, Nakamura M, Lee K, Koo M, Bouix S, Salisbury DS, Hirayasu Y, Morra L, Shenton ME, **Niznikiewicz MA**. Prospective longitudinal volumetric MRI study of superior temporal gray matter and amygdala-hippocampal complex in chronic schizophrenia. *Schizophrenia Research*. 2009 Aug;113(1):84-94. Epub 2009 Jun 13.
64. Spencer KM, **Niznikiewicz MA**, Nestor PG, Shenton ME, McCarley RW. Left auditory cortex gamma synchronization and auditory hallucination symptoms in schizophrenia. *BMC Neurosci*. 2009 Jul 20;10:85.
65. Nestor PG, Klein K, Pomplun M, **Niznikiewicz M**, McCarley RW. Gaze cueing of attention in schizophrenia: Individual differences in neuropsychological functioning and symptoms. *J Clin Exp Neuropsychol*. 2009 Jun 18:1-9.
66. **Niznikiewicz M**, Mittal MS, Nestor PG, McCarley RW. Abnormal inhibitory processes in semantic networks in schizophrenia. *Int J Psychophysiol*. 2009 Oct 17.
67. Ungar L, Nestor PG, **Niznikiewicz MA**, Wible CG, Kubicki M. Color Stroop and negative priming in schizophrenia: An fMRI study. *Psychiatry Res*. 2010 Jan 30;181(1):24-9. Epub

68. Nestor PG, Kubicki M, Nakamura M, **Niznikiewicz M**, McCarley RW, Shenton ME. Comparing prefrontal gray and white matter contributions to intelligence and decision making in schizophrenia and healthy controls. *Neuropsychology*. 2010 Jan;24(1):121
69. Dickey CC, Morocz IA, Minney D, **Niznikiewicz MA**, Voglmaier MM, Panych LP, Khan U, Zacks R, Terry DP, Shenton ME, McCarley RW. Factors in sensory processing of prosody in schizotypal personality disorder: An fMRI experiment. *Schizophr Res*. 2010 Mar 31.
70. Nestor PG, **Niznikiewicz M**, McCarley RW. Distinct contribution of working memory and social comprehension failures in neuropsychological impairment in schizophrenia. *J Nerv Ment Dis*. 2010 Mar;198(3):206-12.
71. Whitford TJ, Kubicki M, Schneiderman JS, O'Donnell LJ, King R, Alvarado JL, Khan U, Markant D, Nestor PG, **Niznikiewicz M**, McCarley RW, Westin CF, Shenton ME. Corpus Callosum Abnormalities and Their Association with Psychotic Symptoms in Patients with Schizophrenia. *Biol Psychiatry*. 2010 May 20
72. Pinheiro AP, Galdo-Álvarez S, Sampaio A, **Niznikiewicz M**, Gonçalves OF. Electrophysiological correlates of semantic processing in Williams syndrome. *Res Dev Disabil*. 2010 Nov-Dec;31(6):1412-25. Epub 2010 Jul 31
73. Kikinis Z, Fallon JH, **Niznikiewicz M**, Nestor P, Davidson C, Bobrow L, Pelavin PE, Fischl B, Yendiki A, McCarley RW, Kikinis R, Kubicki M, Shenton ME. Gray matter volume reduction in rostral middle frontal gyrus in patients with chronic schizophrenia. *Schizophr Res*. 2010 Nov;123(2-3):153-9.
74. Spencer KM, Nestor PG, Valdman O, **Niznikiewicz MA**, Shenton ME, McCarley RW. Enhanced facilitation of spatial attention in schizophrenia. *Neuropsychology*. 2011 Jan;25(1):76-85
75. Pinheiro AP, Galdo-Álvarez S, Rauber A, Sampaio A, **Niznikiewicz M**, Gonçalves OF. Abnormal processing of emotional prosody in Williams syndrome: an event-related potentials study. *Res Dev Disabil*. 2011 Jan-Feb;32(1):133-47.
76. Pinheiro AP, Soares AP, Comesaña M, **Niznikiewicz M**, Gonçalves OF. Sentence-final word completion norms for European Portuguese children and adolescents. *Behav Res Methods*. 2010 Nov;42(4):1022-9.
77. Choi H, Kubicki M, Whitford TJ, Alvarado JL, Terry DP, **Niznikiewicz M**, McCarley RW, Kwon JS, Shenton ME. Diffusion tensor imaging of anterior commissural fibers in patients with schizophrenia. *Schizophr Res*. 2011 May 9
78. Dickey CC, Panych LP, Voglmaier MM, **Niznikiewicz MA**, Terry DP, Murphy C, Zacks R, Shenton ME, McCarley RW. Facial emotion recognition and facial affect display in schizotypal personality disorder. *Schizophr Res*. 2011 Jun 1
79. Whitford TJ, Savadjiev P, Kubicki M, O'Donnell LJ, Terry DP, Bouix S, Westin CF, Schneiderman JS, Bobrow L, Rausch AC, **Niznikiewicz M**, Nestor PG, Pantelis C, Wood SJ, McCarley RW, Shenton ME. Fiber geometry in the corpus callosum in schizophrenia: evidence for transcallosal misconnection. *Schizophr Res*. 2011 Oct;132(1):69-74. Epub 2011 Aug 9.

80. Davidson CA, Kuroki N, Alvarado JL, **Niznikiewicz MA**, McCarley RW, Levitt JJ. An MRI study of septi pellucidi in relation to hippocampus volume and fornix integrity in schizophrenia. *Schizophr Res.* 2011 Dec 14.
81. Liu T, Pinheiro AP, Deng G, Nestor PG, McCarley RW, **Niznikiewicz MA**. Electrophysiological insights into processing nonverbal emotional vocalizations. *Neuroreport.* 2012 Jan 25;23(2):108-12.
82. Liu T, Ana, Pinheiro A, Zhao Z, Nestor PG, McCarley RW, **Niznikiewicz MA**. Emotional Cues during Simultaneous Face and Voice Processing: Electrophysiological Insights. *PLoS One.* 2012;7(2):e31001. Epub 2012 Feb 22.
83. Rosenberger G, Nestor PG, Oh JS, Levitt JJ, Kindlemann G, Bouix S, Fitzsimmons J, **Niznikiewicz M**, Westin CF, Kikinis R, McCarley RW, Shenton ME, Kubicki M. Anterior limb of the internal capsule in schizophrenia: a diffusion tensor tractography study. *Brain Imaging Behav.* 2012 Mar 14
84. Pinheiro AP, Del Re E, Nestor PG, McCarley RW, Gonçalves OF, **Niznikiewicz M**. Interactions between mood and the structure of semantic memory: Event-related potentials evidence. *Soc Cogn Affect Neurosci.* 2012 March
85. Nestor PG, Nakamura M, **Niznikiewicz M**, Thompson E, Levitt JJ, Choate V, Shenton ME, McCarley RW. In search of the functional neuroanatomy of sociality: MRI subdivisions of orbital frontal cortex and social cognition. *Soc Cogn Affect Neurosci.* 2012 Apr 24;19
86. Pinheiro AP, McCarley RW, Thompson E, Gonçalves OF, **Niznikiewicz M**. From semantics to feelings: how do individuals with schizophrenia rate the emotional valence of words? *Schizophr Res Treatment.* 2012;2012:431823
87. Pinheiro AP, Del Re E, Mezin J, Nestor PG, Rauber A, McCarley RW, Gonçalves OF, **Niznikiewicz MA**. Sensory-based and higher-order operations contribute to abnormal emotional prosody processing in schizophrenia: an electrophysiological investigation. *Psychol Med.* 2012 Jul 10:1-16
88. Dickey CC, Vu MA, Voglmaier MM, **Niznikiewicz MA**, McCarley RW, Panych LP. Prosodic abnormalities in schizotypal personality disorder. *Schizophr Res.* 2012 Oct 12
89. Nestor PG, Kubicki M, Nakamura M, **Niznikiewicz M**, Levitt JJ, Shenton ME, McCarley RW. Neuropsychological variability, symptoms, and brain imaging in chronic schizophrenia. *Brain Imaging Behav.* 2013 Mar;7(1):68-76
90. Asami T, Saito Y, Whitford TJ, Makris N, **Niznikiewicz M**, McCarley RW, Shenton ME, Kubicki M. Abnormalities of middle longitudinal fascicle and disorganization in patients with schizophrenia. *Schizophr Res.* 2013 Feb;143(2-3):253-9. doi: 10.1016/j.schres.2012.11.030. Epub 2013 Jan 3.
91. Asami T, Whitford TJ, Bouix S, Dickey CC, **Niznikiewicz M**, Shenton ME, Voglmaier MM, McCarley RW. Globally and locally reduced MRI gray matter volumes in neuroleptic-naïve men with schizotypal personality disorder: association with negative symptoms. *JAMA Psychiatry.* 2013 Apr;70(4):361-72.
92. Oribe N, Hirano Y, Kanba S, del Re EC, Seidman LJ, Meshulam-Gately R, Spencer KM, McCarley RW, **Niznikiewicz MA**. Early and late stages of visual processing in individuals in prodromal state and first episode schizophrenia: an ERP study. *Schizophr Res.* 2013 May;146(1-3):95-102

93. Araki T, **Niznikiewicz MA**, Kawashima T, Nestor PG, Shenton ME, McCarley RW. Disruption of function-structure coupling in brain regions sub-serving self monitoring in schizophrenia. *Schizophr Res*. 2013 May;146(1-3):336-43. doi: 10.1016/j.schres.2013.02.028. Epub 2013 Mar 16.
94. **Niznikiewicz MA**, Kubicki M, Mulert C, Condray R. Schizophrenia as a disorder of communication. *Schizophr Res Treatment*. 2013;2013:952034. doi: 10.1155/2013/952034. Epub 2013 May 12. No abstract available.
95. Pinheiro AP, Liu T, Nestor PG, McCarley RW, Gonçalves ÓF, **Niznikiewicz MA**. Visual emotional information processing in male schizophrenia patients: combining ERP, clinical and behavioral evidence. *Neurosci Lett*. 2013 Aug 29;550:75-80
96. Cadenhead KS, Addington J, Cannon TD, Cornblatt BA, de la Fuente-Sandoval C, Mathalon DH, Perkins DO, Seidman LJ, Tsuang M, Walker EF, Woods SW, Bachman P, Belger A, Carrión RE, Donkers FC, Duncan E, Johannesen J, León-Ortiz P, Light G, Mondragón A, **Niznikiewicz MA**, Nunag J, Roach BJ, Solís-Vivanco R; North American Prodromal Longitudinal Studies Consortium. Between-site reliability of startle prepulse inhibition across two early psychosis consortia. *Neuroreport*. 2013 Aug 7;24(11):626-30
97. Pinheiro AP, Liu T, Nestor PG, McCarley RW, Gonçalves ÓF, **Niznikiewicz MA**. Visual emotional information processing in male schizophrenia patients: combining ERP, clinical and behavioral evidence. *Neurosci Lett*. 2013 Aug 29;550:75-80
98. Pinheiro AP, Rezaii N, Rauber A, Liu T, Nestor PG, McCarley RW, Gonçalves OF<sup>3</sup>, **Niznikiewicz MA**. Abnormalities in the processing of emotional prosody from single words in schizophrenia. *Schizophrenia Research*, accepted. *Schizophr Res*. 2014 Jan;152(1):235-41
99. Vu MA, Thermenos HW, Terry DP, Wolfe DJ, Voglmaier MM, **Niznikiewicz MA**, McCarley RW, Seidman LJ, Dickey CC. Working memory in schizotypal personality disorder: fMRI activation and deactivation differences. *Schizophr Res*. 2013 Dec;151(1-3):113-23
100. Ohtani T, Levitt JJ, Nestor PG, Kawashima T, Asami T, Shenton ME, **Niznikiewicz MA**, McCarley RW. Prefrontal cortex volume deficit in schizophrenia: A new look using 3T MRI with manual parcellation. *Schizophr Res*. 2014 Jan;152(1):184-90
101. Del Re EC, Bergen SE, Mesholam-Gately RI, **Niznikiewicz MA**, Goldstein JM, Woo TU, Shenton ME, Seidman LJ, McCarley RW, Petryshen TL. Analysis of schizophrenia-related genes and electrophysiological measures reveals ZNF804A association with amplitude of P300b elicited by novel sounds. *Transl Psychiatry*. 2014 Jan 14;4:e346
102. Asami T, Hyuk Lee S, Bouix S, Rathi Y, Whitford TJ, Niznikiewicz M, Nestor P, McCarley RW, Shenton ME, Kubicki M. Cerebral white matter abnormalities and their associations with negative but not positive symptoms of schizophrenia. *Psychiatry Res*. 2014 Apr 30;222(1-2):52-9

#### **Proceedings of Meetings:**

1. **Niznikiewicz MA**, Seidman LJ, Dickey CC, Solinger J, Shenton ME, McCarley RW. N400

abnormalities during sentence processing in schizotypal and schizophrenic subjects. Proceedings of the *International Event-Related Potentials of the Brain Conference (EPIC XI)*, Japan, 1995. In: Ogura C, Koga Y, Shimokochi M, eds. *Recent Advances in Event-Related Brain Potential Research*. Amsterdam, The Netherlands: Elsevier Science B.V.; 1996:1004-1008.

### Reviews, Chapters, and Editorials:

1. **Niznikiewicz MA**, Seidman LF, Dickey CC, Solinger J, Shenton ME, McCarley RW. N400 abnormalities during sentence processing in schizotypal and schizophrenic subjects. In: Ogura C, Koga Y, Shimokochi M (eds.). *Recent Advances in Event-Related Brain Potential Research*. Elsevier Science B.V.; 1996. p 1004-1008.
2. **Niznikiewicz MA**, Kubicki M, Shenton ME. Recent Structural and Functional Imaging Findings in Schizophrenia. *Recent Opinion in Psychiatry*. 2003;123-147
3. **Niznikiewicz MA**, Spencer K, Salisbury, D, McCarley, WM. Event related potentials in schizophrenia research. In: Lawrie SM, Weinberger DR, Johnstone EC (eds.). *Schizophrenia: from Neuroimaging to Neuroscience*. Oxford: Oxford University Press; 2004. pp. 293-330.
4. O'Donnell BF, Salisbury DS, **Niznikiewicz MA**, Brenner CA, Vohs JL. Abnormalities of Event Related Potential Components in Schizophrenia. In: Luck S & Kappenman E. *Event-Related Potential Components*. New York, Oxford Press (2011).
5. **Niznikiewicz MA**, Kubicki M, Mulert C, Condray R. Schizophrenia as a disorder of communication. *Schizophrenia Research and Treatment*. Special Issue 2013.

**Abstracts:** (Only Abstracts that have not yet appeared in peer reviewed journals are listed below.)

- A1. **Niznikiewicz MA**, Nestor PG, Spencer K, Araki T, Lewis E, McCarley RW. Abnormal Inhibitory Processing In Schizophrenia as Documented by Stroop ERP Data. Poster presented at ACNP conference, 2005
- A2. **Niznikiewicz MA**, Ungar L, Lewis E, Nestor PG, McCarley RW. Categorical and Associative Priming in Schizophrenia: ERP Evidence. Poster presented at *the Society for Biological Psychiatry 2007 Annual Meeting*, San Diego, CA. *Biol Psychiatry* 2007;61:250S.
- A3. LaVallee SA, Voglmaier MM, Shenton ME, Dickey CC, Seidman LJ, McCarley RW, **Niznikiewicz MA**. Category formation in schizotypal adults: event related potential and behavioral correlates. *2006 Mysell Research Day*.
- A4. Zacks R, Dickey CC, Shenton ME, Seidman LJ, McCarley RW, **Niznikiewicz MA**. ERP indices of face and facial emotion processing in schizotypal personality disorder. Poster presented at 2008 Mysell Research Day.
- A5. Araki T, **Niznikiewicz MA**, Kasai K: Action monitoring and anterior cingulate cortex in schizophrenia. 13th Pacific Rim College of Psychiatrists Scientific Meeting, Tokyo, JAPAN, Nov 2, 2008. (symposium)
- A6. del Re E, Kim D, Yaffe B, **Niznikiewicz MA** & McCarley RW. Electrophysiological Correlates of Auditory Novelty P3a and Auditory Oddball P3b in First Episode Schizophrenia. Mysell Lecture

Research Day, Harvard Medical School, March 30 2011

- A7. McCarley RW, Del Re E, Salisbury DF, and **Niznikiewicz MA**. Electrophysiological And Structural MRI Biomarkers For Progression In Schizophrenia. 13th International Congress on Schizophrenia Research (ICOSR). April 2-6, 2011. Colorado Springs, Colorado, USA.
- A8. Pinheiro AP, del Re E, Gonçalves O, **Niznikiewicz MA**. Understanding the melody of speech: electrophysiological abnormalities in schizophrenia and relationship with auditory hallucinations. 2011 APS Annual Convention, May 26 - 29, 2011 in Washington, DC
- A9. Thompson, O. Lagerlof, P. Nestor, R.W. McCarley, **Niznikiewicz MA**. Logical Reasoning Abnormalities in Schizophrenia: Event-related Potentials Evidence. Mysell Lecture Research Day, Harvard Medical School, March 30 2011
- A10. Liu T, McCarley RW, **Niznikiewicz MA**. Multisensory Integration Of Neutral Face And Voice In Schizophrenia And Normal Control Individuals. Society for Psychophysiological Research Conference. Boston, 2011.
- A11. Liu T, Zhao Z, McCarley RW, **Niznikiewicz MA**. The Influence Of Emotion On Audiovisual Integration Of Face And Voice. Society for Psychophysiological Research Conference. Boston, 2011.
- A12. Hirano Y, Quan M, **Niznikiewicz MA**, McCarley RW, Spencer KM: Abnormal Gamma-band Auditory Steady-State Responses in Chronic Schizophrenia. 2012 Mysell Research Meeting. 2012.3.28. Boston, USA
- A13. Del Re EC and Hirano Y, Lin A, Voglmaier M, Oribe N, Tasoff T, Spencer KM, **Niznikiewicz MA**, McCarley RW: Electrophysiological and GABA and Glutamate MRS Measures in SPD: Preliminary Results. 2012 Mysell Research Meeting. 2012.3.28. Boston
- A14. Hirano Y, Quan M, **Niznikiewicz MA**, McCarley RW, Spencer KM: Aberrant Gamma-band Auditory Responses in Chronic Schizophrenia. 2012 McGovern MEG Symposium, 2012.4.27. Cambridge, USA
- A15. Hirano Y, Quan M, **Niznikiewicz MA**, McCarley RW, Spencer KM: Abnormal  $\gamma$ -band Auditory Steady-State Responses in Schizophrenia: Functional and Structural Evidence. Society of Biological Psychiatry 67th Annual Meeting, 2012.5.3. Philadelphia, USA
- A16. Oribe N, **Niznikiewicz MA**, Hirano Y, Del Re EC, Tasoff T, Spencer KM, McCarley RW: Visual P300 deficits in individuals in prodromal state and first episode schizophrenia. Society of Biological Psychiatry 67th Annual Meeting, 2012.5.5. Philadelphia, USA
- A17. Oribe N, Hirano Y, Kanba S, **Niznikiewicz MA**, Del Re EC, Tasoff T, Spencer KM, McCarley RW: Early and late stages of visual processing in individuals in prodromal state and first episode schizophrenia: An ERP study. Neuroscience 2012, 2012.10.17. New Orleans, USA
- A18. Lin A, Liao H, Merugumala S, **Niznikiewicz MA**, Spencer KM, Hirano Y, McCarley RW: MRS GABA and Glutamate Abnormalities in the Superior Temporal Gyrus and Their Association with

Gamma Band Oscillation Abnormalities in Schizotypal Personality Disorder and Schizophrenia. American College of Neuropsychopharmacology (ACNP) 51st Annual Meeting. 2012.12.3. Hollywood, FL, USA

- A19. McCarley RW, Naoya Oribe N, Hirano Y, Kanba S, Del Re EC, Seidman L, Mesholam-Gately R, Shenton M, Goldstein JM, Spencer KM, **Niznikiewicz MA**: Progressive Reduction of Visual P300 Amplitude in Patients With First Episode Schizophrenia. American College of Neuropsychopharmacology (ACNP) 52st Annual Meeting. 2013.12.11. Hollywood, FL, USA
- A20. del Re E, **Niznikiewicz MA**, McCarley RW, Spencer KM. Habituation of novelty and target stimulus-evoked ERPs in first episode schizophrenia. Society of Biological Psychiatry, Philadelphia, PA, May 5, 2013
- A21. del Re E, Bergen S, **Niznikiewicz MA**, Purcell S, McCarley RW, Petryshen T. Genetic association between the schizophrenia GWAS risk gene ZNF804A and the Novel P300b electrophysiological component. ICOSR, April 24 2013
- A22. del Re EC, **Niznikiewicz MA**, Petryshen T, and McCarley RW. A Cross Sectional Study of Novel P300 in Prodromes and First Episode Schizophrenia. SIRS, 2012
- A23. del Re E, Hirano Y, Lin A, Voglmaier M, Oribe N, Tasoff T, Molina I, Spencer KM, **Niznikiewicz MA** and McCarley RW. Electrophysiological and GABA-Glutamate Magnetic Resonance Spectroscopy (MRS) Measures in SPD: Initial Results. Mysell Lecture and Research Day, Harvard Medical School-Dept of Psychiatry, March, 2012
- A24. del Re E, **Niznikiewicz MA**, Petryshen T and McCarley RW. Sensory and cognitively mediated event-related potentials index symptoms in first episode schizophrenia. ACPN, 2011; abstract # 1536
- A25. del Re E, Kim D, Yaffe D, **Niznikiewicz MA**, McCarley RW. Auditory Novelty And Oddball In First Episode Schizophrenia. 51st Annual Meeting of the Society for Psychophysiological Research (SPR) September 14-18, 2011, Boston, Massachusetts.
- A26. McCarley RW., del Re EC, Salisbury D. and **Niznikiewicz MA**. Electrophysiological and structural MRI biomarkers in schizophrenia. International Congress on Schizophrenia Research, Colorado Spring, Colorado, April 6, 2011
- A27. Hirano Y, Quan M, Oribe N, **Niznikiewicz MA**, Kanba S, McCarley RW, Spencer KM: Auditory gamma oscillation and cortical volume deficits in schizophrenia. Neuroscience 2012, 2012.10.17. New Orleans, USA

