

**J. Daniel Ragland, Ph.D.**  
**Curriculum Vitae**

Date: March 2020

**Home Address:** 250 Tern Place  
Davis, CA 95616

**Office Address:** University of California at Davis  
Department of Psychiatry and Behavioral Sciences  
Imaging Research Center  
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**Education:**

|                           |   |
|---------------------------|---|
| Sept, 1981-<br>Nov, 1984  | B.A. Earlham College (Psychology)               |
| Sept, 1985-<br>June, 1987 | M.A. American University (Psychology)           |
| Sept, 1987-<br>June, 1991 | Ph.D. American University (Clinical Psychology) |

**Postgraduate Training and Fellowship Appointments:**

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|---------------------------|---|
| Sept, 1986-<br>Sept, 1987 | Neuropsychology Extern, National Institute of Mental Health,<br>Clinical Brain Disorders Branch, Washington, D.C.   |
| Sept, 1988-<br>June, 1990 | Clinical Psychology Extern, The Catholic University of<br>America, Washington, D.C.   |
| July, 1990-<br>June, 1991 | Clinical Psychology Intern, The Medical College of<br>Pennsylvania at EPPI, Philadelphia, PA.   |
| July, 1991-<br>June, 1993 | Post-doctoral Trainee in Neuropsychiatry, National Research<br>Service Award Fellow, Department of Psychiatry, University<br>of Pennsylvania, Philadelphia, PA. |

**Faculty Appointments:**

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|---------------------------|---|
| July, 1993-<br>June, 1994 | Lecturer "A" in Psychiatry, Department of Psychiatry,<br>University of Pennsylvania School of Medicine  |
| July, 1994-<br>June, 2000 | Assistant Professor of Neuropsychology in Psychiatry,<br>Tenure Track, Department of Psychiatry, University of<br>Pennsylvania School of Medicine |

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|---------------------------|---|
| July, 2000-<br>June, 2003 | Assistant Professor of Neuropsychology in Psychiatry,<br>Clinician Educator Track, Department of Psychiatry,<br>University of Pennsylvania School of Medicine |
| July, 2003-<br>June, 2006 | Associate Professor of Neuropsychology in Psychiatry,<br>Clinician Educator Track, Department of Psychiatry,<br>University of Pennsylvania School of Medicine |
| July, 2006-<br>June, 2010 | Associate Professor of Psychiatry and Behavioral Sciences,<br>Tenured, Department of Psychiatry and Behavioral Sciences,<br>University of California at Davis |
| July, 2010-<br>Present    | Professor of Psychiatry and Behavioral Sciences, Step 5,<br>Department of Psychiatry<br>and Behavioral Sciences, University of California at Davis            |

**Hospital and Administrative Appointments:**

|                |   |
|----------------|---|
| 1993 -<br>2006 | Medical Staff Affiliate, Hospital of the University<br>of Pennsylvania  |
| 2000 -<br>2006 | Neuropsychology Training Director, Brain Behavior<br>Laboratory, Department of Psychiatry, University of<br>Pennsylvania School of Medicine |
| 2006-present   | Psychologist, Early Detection and Intervention for the<br>Prevention of Psychosis Program, University of California at<br>Davis             |
| 2007-present   | Member, Neuroscience Advisory Group, Center for<br>Neuroscience, University of California at Davis  |
| 2007-2019      | Member, Psychology Graduate Group, Department of<br>Psychology, University of California at Davis   |
| 2013-present   | Consulting Psychologist, Sacramento County Mental Health<br>Treatment Center, Sacramento, California  |

**Licensure:**

**Psychologist**

California License #: PSY21739

**Awards, Honors and Membership in Honorary Societies:**

|      |   |
|------|---|
| 1984 | Earlham College General and Departmental Honors   |
| 1991 | American University Dissertation Fellowship Award |
| 1991 | National Research Service Award Fellowship        |
| 1994 | Phi Kappa Phi Honor Society                       |
| 1997 | Young Investigator Award, The EJLB Foundation     |

|             |   |
|-------------|---|
| 2002        | Recipient, NIH Loan Repayment Program Award                   |
| 2003-10     | Associate Member, American College of Neuropsychopharmacology |
| 2003        | Member, John Morgan Society                                   |
| 2004        | NARSAD Independent Investigator Award                         |
| 2005 - 2006 | Hofmann Trust Investigator                                    |
| 2008 - 2009 | UC Davis Academic Senate Research Travel Award                |
| 2010        | Member, American College of Neuropsychopharmacology           |
| 2013        | UC Davis Academic Senate Research Travel Award                |
| 2015        | Fellow, American College of Neuropsychopharmacology           |

**Memberships in Professional and Scientific Societies:**

**International Societies:**

American College of Neuropsychopharmacology (ACNP)  
Memory Disorders Research Society  
Society of Biological Psychiatry  
Schizophrenia International Research Society

**National Scientific Committees:**

Study Section Member, Chronic Fatigue Syndrome Pathophysiology.  
National Institutes of Health, Bethesda, MD.

Review Member, Wellcome Trust. Great Britain.

Advisory Committee Member, NINDS Health Disparities Working Group:  
Cognitive and Emotional Health in Children. National Institutes of  
Health, Bethesda, MD.

Study Section Member, Special Emphasis Panel, ZMH1 NRB-Q-06. National  
Institutes of Health, Bethesda, MD.

Review Member, Michael Smith Foundation. British Columbia, Canada.

Study Section Member, Special Emphasis Panel, ZRG1 BBBP-R (02) R,  
National Institutes of Health, Bethesda, MD.

Ad-hoc member of NIMH Neural Basis of Psychopathology, Addictions and  
Sleep Disorders Study Section (NPAS). National Institutes of Health,  
Bethesda, MD.

Study Section Member, Special Emphasis Panel, ZRG1 EMNR-R(02).  
National Institutes of Health, Bethesda, MD.

Ad-hoc member of NIMH Adult Psychopathology and Disorders of Aging  
Study Section (APDA). National Institutes of Health, Bethesda, MD.

Study Section Member, NIMH Adult Psychopathology and Disorders of Aging Study Section (APDA). National Institutes of Health, Bethesda, MD.

### **Editorial Positions:**

Editorial Board Member of *Biological Psychiatry*  
 Editorial Board Member of *Schizophrenia Research and Treatment*  
 Editorial Board Member of *Schizophrenia Research: Cognition*  
 Editorial Board Member of *Biological Psychiatry: Cognitive Neuroscience and Neuroimaging*  
 Faculty Member *Faculty of 1000 Medicine (Schizophrenia & Other Psychosis)*

Ad-Hoc Reviewer for: *American Journal of Geriatric Psychiatry, American Journal of Psychiatry, Archives of General Psychiatry, Behavioral Sciences, Biological Psychiatry, Brain, Brain and Cognition, Brain and Language, Cerebral Cortex, European Review of Applied Psychology, Journal of Abnormal Psychology, Journal of Neuroscience, NeuroImage, Neuropsychology, Neuropsychologia, PLOS ONE, Psychiatry Research: Neuroimaging, Schizophrenia Bulletin, Schizophrenia Research, World Psychiatry.*

### **Organizing Role in Scientific Meetings and Study Sections:**

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|--------------|--|
| 2011         | Co-Chair, “Role of the Prefrontal Cortex in Memory Dysfunction in Psychosis”, (American College of Neuropsychopharmacology, Boca Raton, Florida, USA)  |
| 2013         | Chair, “Cognitive neuroscience perspectives on memory network dysfunction in schizophrenia and clinical risk states”, (14 <sup>th</sup> Annual Meeting of the International Congress on Schizophrenia Research, Orlando, FL, USA). |
| 2013         | Co-Chair, “Cognition in psychosis”, (14 <sup>th</sup> Annual Meeting of the International Congress on Schizophrenia Research, Orlando, FL, USA).   |
| 2015         | Chair, Special Emphasis Panel, ZRG1 EMNR-R(02). National Institutes of Health, Bethesda, MD.   |
| 2017-present | Review Member, NIMH Adult Psychopathology and Disorders of Aging Study Section (APDA). National Institutes of Health, Bethesda, MD.  |
| 2019         | Co-Chair, NIMH Adult Psychopathology and Disorders of Aging Study Section (APDA). National Institutes of Health, Bethesda, MD.   |

### **University Committee Service:**

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| 2007-2016    | Committee for Research Affairs, UC Davis School of Medicine   |
| 2010-present | Research Affairs Committee, Department of Psychiatry and Behavioral Sciences, UC Davis School of Medicine |
| 2010-2014    | Committee on Research – Grants, UC Davis Academic Senate  |

|              |  |
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| 2012-2016    | Compensation Advisory Committee, UC Davis School of Medicine   |
| 2013-2017    | Faculty Executive Committee, UC Davis School of Medicine   |
| 2014-2017    | Committee on Planning and Budget, UC Davis Academic Senate   |
| 2015-2017    | Coordinating Committee for Self-Supporting Degree Programs, UC Davis Academic Senate   |
| 2016         | Member, Search Committee for Associate Vice Chancellor for Academic Personnel, UC Davis School of Medicine   |
| 2016         | Member, Center Director Reappointment Review Committee, UC Davis School of Medicine  |
| 2016-2018    | Chair, Compensation Advisory Committee, UC Davis School of Medicine  |
| 2016         | Member, Endowed Chair Reappointment Review Committee, UC Davis School of Medicine  |
| 2016         | Member, Dean's Professorship Appointment Review Committee, UC Davis School of Medicine   |
| 2017-2018    | Member, Committee on Student Promotions, UC Davis School of Medicine   |
| 2016-present | Selection Committee Member, Junior Faculty Development Award, Department of Psychiatry and Behavioral Sciences, UC Davis School of Medicine              |
| 2017-present | Member, Grand Rounds Committee, Department of Psychiatry and Behavioral Sciences, UC Davis School of Medicine  |
| 2018-present | Review Member, Medical Student Research Fellowship Program (MSRF), UC Davis School of Medicine   |
| 2018-present | Member, Faculty Personnel Committee, UC Davis School of Medicine   |
| 2019         | Search Chair, Associate Professor in Residence for Pediatric Neuroimaging, Department of Psychiatry and Behavioral Sciences, UC Davis School of Medicine |
| 2019         | Co-Chair, Professional Improvement Committee (PIC), UC Davis School of Medicine  |

**Other Committee Service:**

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| 2010-2014 | Member, American College of Neuropsychopharmacology (ACNP), Education and Training Committee                                     |
| 2014-2015 | Member, American College of Neuropsychopharmacology (ACNP), Public Information Committee Member                                  |
| 2016      | Member, International Congress of Schizophrenia Research (ICOSR), Program Planning Committee, 16 <sup>th</sup> Annual Conference |
| 2016-2017 | Co-Chair, American College of Neuropsychopharmacology (ACNP), Public Information Committee                                       |
| 2017-2018 | Chair, American College of Neuropsychopharmacology (ACNP), Public Information Committee  |

**Major Teaching and Clinical Responsibilities:**

1. 1993-2006 Neuropsychology Clinic Supervisor at HUP, 1 day/week
2. 1996 Residency Training in Clinical Interview, HUP
3. 1997 Residency Training in Clinical Interview, HUP
4. 1997 Lecturer, Neuroimaging Seminar, Dept. of Psychology, Univ. of Pennsylvania
5. 1998 Lecturer, Psychiatric Diagnosis and Treatment (PGY2), HUP
6. 1998 Lecturer, IRCS Brain and Language Reading Group, Univ. of Pennsylvania
7. 1999 Lecturer, Biological and Behavioral Correlates of Mental Health and Illness (N622), School of Nursing, HUP
8. 1999 Lecturer, Psychiatric Diagnosis and Treatment (PGY2), HUP
9. 2000 Guest Lecturer, Pediatric Neuropsychiatry Module for Child and Adolescent Psychiatry Residents, CHOP
10. 2000 Lecturer, Biological and Behavioral Correlates of Mental Health and Illness (N622), School of Nursing, HUP
11. 2000 Lecturer, Psychiatric Diagnosis and Treatment (PGY2), HUP
12. 2000 Lecturer, IRCS Brain and Language Reading Group, Univ. of Pennsylvania
13. 2001 Lecturer, Brain and Behavior Course, HUP
14. 2001 Lecturer, BSN Survey Course (N321), School of Nursing, HUP
15. 2001 Lecturer, Biological and Behavioral Correlates of Mental Health and Illness (N622), School of Nursing, HUP
16. 2001 Lecturer, Neurobehavioral Studies of Schizophrenia (PGY I/II), HUP
17. 2002 Lecturer, Mental Status Examination, School of Medicine, HUP
18. 2002 Guest Lecturer, Psychiatric Diagnosis and Treatment (PGY2), HUP
19. 2003 Lecturer, Mental Status Examination, School of Medicine, HUP
20. 2003 Lecturer, Evidence Based Psychiatry Seminar (PGY 1&2), HUP
21. 2003 Lecturer, Neurobehavioral Studies of Schizophrenia (PGY I/II), HUP
22. 2004 Lecturer, University of Pennsylvania Clinical Seminars, Department of Psychology
23. 2004 Lecturer, Advanced Topics in Neuropsychopharmacology (Pharm 550), HUP
24. 2004 Guest Lecturer, Graduate Seminar in Neuroimaging, Drexel University
25. 2004 Guest Lecturer, Philadelphia Neuropsychology Society CME Presentation, Drexel University

26. 2004 Lecturer, Neurobehavioral Studies of Schizophrenia (PGY I/II), HUP
27. 2004 Lecturer, Biological and Behavioral Correlates of Mental Health and Illness (N622), School of Nursing, HUP
28. 2004 Lecturer, IRCS Brain and Language Reading Group, Univ. of Pennsylvania
29. 2005 Lecturer, Biological and Behavioral Correlates of Mental Health and Illness (N622), School of Nursing, HUP
30. 2006 Instructor, Doctoring II, School of Medicine, University of California at Davis.
31. 2007 Instructor, Introduction to Clinical Psychiatry (PSY 403), School of Medicine, University of California at Davis.
32. 2008 Instructor, Doctoring III, School of Medicine, University of California at Davis. School of Medicine, University of California at Davis.
33. 2009 Co-Instructor, Neuroscience for Clinicians, University of California at Davis. School of Medicine, University of California at Davis.
34. 2009 Instructor, Doctoring II, School of Medicine, University of California at Davis.
35. 2010 Co-Instructor, Neuroscience for Clinicians, University of California at Davis. School of Medicine, University of California at Davis.
36. 2010 Instructor, Doctoring II, School of Medicine, University of California at Davis.
37. 2011 Guest Lecturer, Masters Program in Health Informatics, School of Medicine, University of California at Davis.
38. 2011 Instructor, Doctoring II, School of Medicine, University of California at Davis.
39. 2012 Instructor, Doctoring II, School of Medicine, University of California at Davis.
40. 2012 Co-Instructor, Neuroscience for Clinicians, University of California at Davis. School of Medicine, University of California at Davis.
41. 2013 Instructor, Doctoring II, School of Medicine, University of California at Davis.
42. 2013 Co-Instructor, Neuroscience for Clinicians, University of California at Davis. School of Medicine, University of California at Davis.
43. 2014 Instructor, Doctoring II, School of Medicine, University of California at Davis.
44. 2014 Co-Instructor, Neuroscience for Clinicians, University of California at Davis. School of Medicine, University of California at Davis.
45. 2014 Lecturer, Evidence-Based Practice, Department of Psychiatry and Behavioral Sciences, School of Medicine, University of California at Davis

46. 2014 Co-Instructor, Neuroscience for Clinicians, University of California at Davis. School of Medicine, University of California at Davis.
47. 2015 Instructor, Doctoring II, School of Medicine, University of California at Davis.
48. 2015 Co-Instructor, Neuroscience for Clinicians, University of California at Davis. School of Medicine, University of California at Davis.
49. 2016 Co-Instructor, Neuroscience for Clinicians, University of California at Davis. School of Medicine, University of California at Davis.
50. 2017 Co-Instructor, Neuroscience for Clinicians, University of California at Davis. School of Medicine, University of California at Davis.
51. 2018 Instructor, Doctoring II, School of Medicine, University of California at Davis.
52. 2019 Instructor, Doctoring II, School of Medicine, University of California at Davis.

**Lectures by Invitation: (past 10 years)**

- April 11, 2008 “Role of the Prefrontal Cortex in Memory Dysfunction in Psychosis”, Department of Psychiatry and Research Imaging Center, University of Texas Health Science Center at San Antonio, San Antonio, TX, USA
- April 24, 2008 “Role of the Prefrontal Cortex in Memory Dysfunction in Psychosis”, OMNI Meeting, Center for Mind and Brain, UC Davis, Davis, CA., USA
- August 21, 2008 “Candidate Mechanism of Memory Dysfunction in Schizophrenia”, National Institutes of Mental Health, Rockville, MD, USA
- Sept. 19, 2008 “Prefrontal Cortex and Relational Memory Deficits in Schizophrenia”, Memory Disorders Research Meeting, St. Louis, MO, USA
- Nov. 4, 2008 “A Neuroscience Perspective on Schizophrenia”, Departments of Biology and Psychology, Chico State University, Chico, CA, USA
- Nov. 22, 2008 “Prefrontal Control of Attention and Memory in Schizophrenia”, International Symposium on The Cognitive Neuroscience of attention: From Basic Research to Clinical Application, University of Aachen, Aachen, Germany
- March 7, 2009 “Functional MRI Imaging Center Workshop”, 3<sup>rd</sup> Annual UC Davis Health Informatics Program, Department of Psychiatry UC Davis Medical School, Sacramento, CA, USA
- March 27, 2009 “Schizophrenia’s Impact on Basic Prefrontal Mechanisms of Episodic Encoding and Retrieval”, The International Congress Emory University Cognition Satellite Meeting, San Diego, CA, USA



- March 28, 2009 “Using Eye-Movements to Assess Item-Specific and Relational Long Term Memory in Schizophrenia”, 12th Annual Meeting of the International Congress on Schizophrenia Research, San Diego, CA, USA
- July 16, 2009 “Contribution of Relational Encoding & Retrieval to Episodic Memory Deficits in Schizophrenia”, Psychiatry Grand Rounds, Vanderbilt University, Nashville, TN, USA
- Feb. 19, 2010 "Contribution of Relational Encoding and Retrieval to Episodic Memory Deficits in Schizophrenia", Guest Speaker, UC Davis, Dept. Psychology, PCCN brownbag series, Davis, CA., USA
- April 23, 2010 “Cognitive Control of Memory Deficits in Schizophrenia”, Integrated Neuroscience Seminar, UC Davis Center for Mind and Brain, Davis, CA, USA
- May 21, 2010 “Translational Development of the Relational and Item-Specific Encoding (RISE) Long Term Memory Task”, 65<sup>th</sup> Annual Meeting, Society of Biological Psychiatry, New Orleans, LA, USA
- August 13, 2010 “Eye Movement Monitoring of Item and Relational Memory In Schizophrenia”, 118<sup>th</sup> Annual Convention, American Psychological Association, San Diego, CA., USA
- October 8, 2010 “Memory of Items and their Relations: The RISE Task”, 24<sup>th</sup> Annual Meeting, Society for Research in Psychopathology, Seattle, WA, USA
- April 3, 2011 “Memory of Items and their Relations: The RISE Task”, 13<sup>th</sup> Annual Meeting, International Congress on Schizophrenia Research, Colorado Springs, CO, USA
- Sept 15, 2011 “Forgetfulness and Disorganization in Schizophrenia: Brain Circuits and Intervention”, Sixth Annual UC Davis Conference on Psychotic Disorders, Sacramento, CA, USA
- Sept 29, 2011 “Functional Imaging of the Brain”, UC Davis Medical Center, Health Informatics Graduate Program, Sacramento, CA, USA
- May 6, 2012 “Understanding and Treating Impaired Cognition and Emotion in Schizophrenia”, 165<sup>th</sup> Annual Meeting of the American Psychiatric Association, Philadelphia, PA, USA
- April 23, 2013 “Neural Correlates of Recollection and Familiarity Deficits in Schizophrenia”, 14<sup>th</sup> Annual Meeting of the International Congress on Schizophrenia Research, Orlando, FL, USA
- May 16, 2013 “Dorsolateral and Ventrolateral Fronto-Temporal Memory Networks in Schizophrenia and Schizoaffective Disease States”, 68<sup>th</sup> Annual Meeting of the Society of Biological Psychiatry, San Francisco, CA, USA
- March 27, 2014 “Forgetfulness & Disorganization in Schizophrenia: Brain Circuits & Interventions”, CME Presentation, Sacramento Valley Psychological Association, Sacramento, CA, USA
- Nov 20, 2014 "From Memory to Neurotransmitter: Multi-modal Imaging of Episodic Memory in People with Schizophrenia", NeuroLunch, Center for Neuroscience, Davis, CA, USA

- April 5, 2016 “Relational and Item Specific Memory Markers of Psychosis Risk”, 5<sup>th</sup> Biennial Schizophrenia International Research Society Conference, Florence, Italy.
- March 26, 2018 “Forgetting to Remember: Memory Network Function and Dysfunction in People with Schizophrenia”, Grand Rounds Presentation, Department of Psychiatry, University of California at San Francisco, San Francisco, CA, USA
- April 22, 2018 “Specificity of Memory Network Dysfunction in People with Schizophrenia”, 2018 International Conference on Learning and Memory, Huntington Beach, CA, USA
- March 26, 2018 “Forgetting to Remember: Memory Network Function and Dysfunction in People with Schizophrenia”, Psychiatry Grand Rounds, University of California at San Francisco, San Francisco, CA, USA
- April 12, 2019 “Relational Memory Deficits in Schizophrenia: What is Wrong With the Hippocampus and Frontal Lobe?”, 2019, Schizophrenia International Research Society, Orlando, FL, USA
- May 15, 2019 “Specificity of Episodic Memory Encoding & Retrieval Deficit in People with Schizophrenia”, Gordon Conference, Hong Kong, China

**Bibliography:** (*h-index = 53; 10,532 citations*)

**Research Publications, peer reviewed (print or other media):**

1. Goldberg, T.E., Kleinman, J.E., Daniel, D.G., Myslobodsky, M.S., Ragland, J.D., Weinberger, D.R.: Dementia praecox revisited: Age disorientation, mental status and ventricular enlargement. *British Journal of Psychiatry* 153:187-190, 1988.
2. Goldberg, T.E., Ragland, J.D., Torrey, E.F., Gold, J.M., Bigelow, L.B., Weinberger, D.R.: Neuropsychological assessment of monozygotic twins discordant for schizophrenia. *Archives of General Psychiatry* 47:1066-1072, 1990.
3. Ragland, J.D., Berman, A.F.: Farm crisis and suicide: Dying on the vine? *Omega* 22:173-185, 1991.
4. Ragland, J.D., Goldberg, T.E., Wexler, B.E., Gold, J.M., Torrey, E.F., Weinberger, D.R.: Dichotic listening in monozygotic twins discordant and concordant for schizophrenia. *Schizophrenia Research* 7:177-183, 1992.
5. Goldberg, T.E., Torrey, E.F., Gold, J.M., Ragland, J.D., Bigelow, L.B., Weinberger, D.R.: Learning and memory in monozygotic twins discordant for schizophrenia. *Psychological Medicine* 23:71-85, 1993.
6. Torrey, E.F., Ragland, J.D., Gold, J., Goldberg, T.E., Bowler, A., Bigelow, L.B., Gottesman, I.I.: Handedness in twins with schizophrenia: A refutation of Boklage. *Schizophrenia Research* 9:83-85, 1993.
7. Gur, R.C., Jaggi, J.L., Ragland, J.D., Resnick, S.M., Shtasel, D., Muenz, L., Gur R.E.: Effects of memory processing on regional brain activation: Cerebral blood flow in normal subjects. *International Journal of Neuroscience* 72:31-44, 1993.
8. Gur, R.C., Ragland, J.D., Resnick, S.M., Jaggi, J., Skolnick, B.E., Gur, R.E.:

- Lateralized increases in cerebral blood flow during performance of verbal and spatial tasks: Relationship with performance level. *Brain and Cognition* 24:244-258, 1994.
9. Gur, R.E., Jaggi, J., Shtasel, D., Ragland, J.D., Gur, R.C.: Cerebral blood flow in schizophrenia: Effects of memory processing on regional activation. *Biological Psychiatry* 35:3-15, 1994.
  10. Goldberg, T.E., Torrey, E.F., Gold, J.M., Bigelow, L.B., Ragland, J.D., Taylor E., Weinberger D.R.: Genetic risk of neuropsychological impairment in schizophrenia: a study of monozygotic twins discordant and concordant for the disorder. *Schizophrenia Research* 17:77-84, 1995.
  11. Ragland, J.D., Gur, R.C., Deutsch, G.K., Censits, D.M., Gur, R.E.: Reliability and construct validity of the paired-associate recognition test: A test of declarative memory using wisconsin card sorting stimuli. *Psychological Assessment* 7:25-32, 1995.
  12. Smith, R.J., Shao, L., Freifelder, R., Karp, J.S., Ragland, J.D.: Quantitative measurement of cerebral blood flow in volume imaging PET scanners. *IEEE Transactions on Nuclear Science* 42:1018-1023, 1995.
  13. Ragland, J.D., Censits, D.M., Gur, R.E., Glahn, D.C., Gallacher, F., Gur, R.E.: Assessing declarative memory in schizophrenia using Wisconsin Card Sorting Test stimuli: the Paired Associate Recognition Test. *Psychiatry Research* 60:135-145, 1996.
  14. Ragland, J.D., Glahn, D.C., Gur, R.C., Censits, D.M., Smith, R.J., Mozley, P.D., Alavi, A., Gur, R.E.: PET regional cerebral blood flow change during working and declarative memory: relationship with task performance. *Neuropsychology* 11:222-231, 1997.
  15. Gur, R.C., Ragland, J.D., Mozley, L.H., Mozley, P.D., Smith, R., Alavi, A., Bilker, W., Gur, R.E.: Lateralized changes in regional cerebral blood flow during performance of verbal and facial recognition tasks: Correlations with performance and "effort". *Brain and Cognition* 33:388-414, 1997.
  16. Censits, D.M., Ragland, J.D., Gur, R.C., Gur, R.E.: Neuropsychological evidence supporting a neurodevelopmental model of schizophrenia: a longitudinal study. *Schizophrenia Research* 24:289-298, 1997.
  17. Coleman, A.R., Moberg, P.J., Ragland, J.D., Gur, R.C.: Comparison of the halstead-reitan and infra-red light beam finger tappers. *Assessment* 4:271-280, 1997.
  18. Glahn, D.C., Gur, R.C., Ragland, J.D., Gur, R.E.: Reliability, performance characteristics, and construct validity and initial application of the visual object learning test (VOLT). *Neuropsychology* 11:602-612, 1997.
  19. Ragland, J.D., Gur, R.C., Glahn, D.C., Censits, D.M., Smith, R.J., Lazarev, M.G., Alavi, A., Gur, R.E.: Fronto-temporal cerebral blood flow change during executive and declarative memory tasks in schizophrenia: a positron emission tomography study. *Neuropsychology* 12:399-413, 1998.
  20. Ragland, J.D., Gur, R.E., Klimas, B.C., McGrady, N., Gur, R.C.: Neuropsychological laterality indices of schizophrenia: interactions with gender. *Schizophrenia Bulletin* 25:79-89, 1999.

21. Glahn D.C., Cannon, T.D., Gur, R.E., Ragland, J.D., Gur, R.C.: Working Memory Constrains Abstraction in Schizophrenia. *Biological Psychiatry* 47:34-42, 2000.
22. Ragland, J.D., Coleman, A.R., Gur, R.C., Glahn, D.C., Gur, R.E.: Sex differences in brain-behavior relationships between verbal episodic memory and resting regional cerebral blood flow. *Neuropsychologia* 38:451-461, 2000.
23. Kohler, C.G., Ances, B.M., Coleman, A.R., Ragland, J.D., Lazarev, M., Gur, R.C.: Marchiafava-Bignami disease: Literature and case report. *Neuropsychiatry, Neuropsychology, and Behavioral Neurology* 13:67-76, 2000.
24. Ragland, J.D., Gur, R.C., Lazarev, M.G., Smith, R.J., Schroeder, L., Raz, J., Turetsky, B.I., Alavi, A., Gur, R.E.: Hemispheric activation of anterior inferior prefrontal cortex during verbal encoding and recognition. *NeuroImage* 11:624-633, 2000.
25. Kurtz, M.M., Ragland, J.D., Bilker, W.B., Gur, R.C., Gur, R.E.: Comparison of the continuous performance test with and without working memory demands in healthy controls and patients with schizophrenia. *Schizophrenia Research* 48:307-316, 2001.
26. Ragland, J.D., Gur, R.C., Raz, J., Schroeder, L., Smith, R.J., Alavi, A., Gur, R.E.: Effect of Schizophrenia on Frontotemporal Activity During Word Encoding and Recognition: A PET Cerebral Blood Flow Study. *American Journal of Psychiatry* 158:1114-1125, 2001.
27. Hill, S.K., Ragland, J.D., Gur, R.C., Gur, R.E.: Neuropsychological differences among empirically derived clinical subtypes of schizophrenia. *Neuropsychology* 15: 492-501, 2001.
28. Moelter, S.T., Hill, S.K., Ragland, J.D., Lunardelli, A., Gur, R.C., Gur, R.E., Moberg, P.J.: Controlled and automatic processing during animal word list generation in schizophrenia. *Neuropsychology* 15: 502-509, 2001.
29. Gur, R.C., Ragland, J.D., Moberg, P.J., Turner, T.H., Bilker, W.B., Kohler, C., Siegel, S.J., Gur, R.E.: Computerized Neurocognitive Scanning: I. Methodology and validation in healthy people. *Neuropsychopharmacology* 25:766-776, 2001.
30. Gur, R.C., Ragland, J.D., Moberg, P.J., Bilker, W.B., Kohler, C., Siegel, S.J., Gur, R.E.: Computerized Neurocognitive Scanning II: The Profile of Schizophrenia. *Neuropsychopharmacology* 25:777-788, 2001.
31. Langleben, D.D., Schroeder, L., Gur, R.C., Maldjian, J.P., McDonald, S., Ragland, J.D., O'Brien, C.P., Childress, A.R.: Brain Activity during Simulated Deception: An Event-Related Functional Magnetic Resonance. *NeuroImage* 15:727-732, 2002.
32. Ragland, J.D., Turetsky, B.I., Gur, R.C., Gunning-Dixon, F., Turner, T., Schroeder, L., Chan, R., Gur, R.E.: Working Memory for Complex Figures: An fMRI Comparison of Letter and Fractal N-Back Tasks. *Neuropsychology* 16: 370-379, 2002.
33. Gur, R.E., McGrath, C., Chan, R.M., Schroeder, L., Turner, T., Turetsky, B.I., Kohler, C., Alsop, D., Maldjian, J., Ragland, J.D., Gur, R.C.: An fMRI study of facial emotion processing in schizophrenia. *American Journal of Psychiatry* 159:1992-1999, 2002.

34. Hill, S.K., Ragland, J.D., Gur, R.C., Gur, R.E.: Neuropsychological profiles delineate distinct profiles of schizophrenia, an interaction between memory and executive function, and uneven distribution of clinical subtypes. *Journal of Clinical and Experimental Neuropsychology* 24:765-780, 2002.
35. Gur, R.E., Kohler, C., Ragland, J.D., Siegel, S.J., Bilker, W.B., Loughead, J., Phend, N., Gur, R.C.: Neurocognitive Performance and Clinical Changes in Olanzapine Treated Patients with Schizophrenia. *Neuropsychopharmacology*, 28:2029-2036, 2003.
36. Ragland, J.D., Moelter, S.T., McGrath, C., Hill, S.K., Gur, R.E., Bilker, W.B., Siegel, S.J., Gur, R.C.: Levels-Of-Processing Effect on Word Recognition in Schizophrenia. *Biological Psychiatry*, 54:1154-1161, 2003.
37. Kurtz, M.M., Ragland, J.D., Moberg, P.J., Gur, R.C.: The Penn Conditional Exclusion Test: A New Measure of Executive-function with Alternate Forms for Repeat Administration. *Archives of Clinical Neuropsychology*, 19:191-201, 2004.
38. Irani, F., Dankert, M., Brensinger, C., Bilker, W.B., Nair, S.R, Kohler, C.G., Kanes, S.J., Turetsky, B.I., Moberg, P.J., Ragland, J.D., Gur, R.C., Gur, R.E., Siegel, S.J.: Patient attitudes towards surgically-implantable, long-term delivery of psychiatric medicine, *Neuropsychopharmacology*, 29:960-968, 2004.
39. Ragland, J.D., Gur, R.C., Valdez, J., Turetsky, B.I., Elliott, M., Kohler, C., Siegel, S., Kanes, S., Gur, R.E.: Event-Related fMRI of Frontotemporal Activity During Word Encoding And Recognition in Schizophrenia. *American Journal of Psychiatry*, 161:1004-1015, 2004.
40. Elliott, M.A., Gualtieri, E.E., Hulvershorn J., Ragland, J.D., Gur, R.C.: The effects of geometric distortion correction on motion realignment in fMRI. *Academic Radiology*, 11:1005-1010, 2004.
41. Lowery, N., Ragland, J.D., Gur, R.C., Gur, R.E., Moberg, P.J.: Normative data for the Symbol Cancellation Test in young healthy adults. *Applied Neuropsychology*, 11:218-221, 2004.
42. Pelchat, M.L., Johnson, A., Chan, R., Valdez, J., Ragland, J.D.: Images of desire: food craving activation during fMRI. *NeuroImage*, 23:1486-1493, 2004.
43. Kurtz, M.M., Moberg, P.J., Ragland, J.D., Gur, R.C., Gur, R.E.: Symptoms versus neurocognitive test performance as predictors of psychosocial status: A 1- and 4-year prospective study. *Schizophrenia Bulletin*, 31:167-174, 2005.
44. Glahn, D.C., Ragland, J.D., Abramoff, A., Barrett, J., Laird, A.R., Bearden, C.E., Velligan, D.I.: Beyond hypofrontality: a quantitative meta-analysis of functional neuroimaging studies of working memory in schizophrenia. *Human Brain Mapping*, 25:60-69, 2005.
45. Ragland, J.D., Gur, R.C., Valdez, J.N., Loughead, J., Elliott, M., Kohler, C., Kanes, S., Siegel, S.J., Moelter, S.T., Gur, R.E.: Levels-of-processing effect on frontotemporal function in schizophrenia during word encoding and recognition. *American Journal of Psychiatry*, 162:1840-1848, 2005.
46. Calkins, M.E., Gur, R.C., Ragland, J.D., Gur, R.E.: Face recognition memory deficits in schizophrenia patients and their relatives: comparison with

- visual object memory performance. *American Journal of Psychiatry*, 162:1963-1966, 2005.
47. Moelter, S.T., Hill, S.K., Hughett, P., Gur, R.C., Gur, R.E., Ragland, J.D.: Organization of Semantic Category Exemplars in Schizophrenia. *Schizophrenia Research*, 78:209-217, 2005.
  48. Ragland, J.D., McCarthy E., Bilker, W.B., Bressinger, C.M., Valdez, J., Kohler, C. Gur, R.E., Gur, R.C. Levels-Of-Processing Effect on Internal Source Monitoring in Schizophrenia. *Psychological Medicine*, 36:641-648, 2006.
  49. Siegel, S.J., Irani, F., Kohler, C., Bilker, W., Bressinger, C., Kanes, S.J., Ragland, J.D., Gur, R.C., Gur, R.E.: Prognostic variables at intake and later level of function in first episode and previously treated males and females with schizophrenia. *American Journal of Psychiatry*, 163:433-441, 2006.
  50. Dickinson, D., Ragland, J.D., Calkins, M.E., Gold, J.M., Gur, R.C. A Comparison of Cognitive Structure in Schizophrenia Patients and Healthy Controls Using Confirmatory Factor Analysis. *Schizophrenia Research*, 85:20-29, 2006.
  51. Gur, R.E., Kohler, C.G., Ragland, J.D., Siegel, S.J., Lesko, K., Bilker, W.B., Gur, R.C.: Flat Affect in Schizophrenia: Relation to Emotion Processing and Neurocognitive Measures. *Schizophrenia Bulletin*, 32:279-287, 2006.
  52. Weiss, E.M., Ragland, J.D., Bressinger, C.M., Bilker, W.B., Deisenhammer, E.A., Delazer, M.: Sex differences in clustering and switching in verbal fluency tasks. *Journal of the International Neuropsychological Society*, 12:502-509, 2006.
  53. Ragland, J.D., Valdez, J.N., Loughhead, J., Gur, R.C., Gur, R.E.: Functional magnetic resonance imaging of internal source monitoring in schizophrenia: Recognition with and without recollection. *Schizophrenia Research*, 87:160-171, 2006.
  54. Aliyu, M.H., Calkins, M.E., Swanson, C.L. Jr., Lyons, P.D., Savage, R.M., May, R., Wiener, H., Devlin, B., Nimgaonkar, V.L., Ragland, J.D., Gur, R.E., Gur, R.C., Bradford, L.D., Edwards, N., Kwentus, J., McEvoy, J.P., Santos, A.B., McCleod-Bryant S., Tennison, C., Go, R.C.; On behalf of the PAARTNERS study group. Project among African-Americans to explore risks for schizophrenia (PAARTNERS): Recruitment and assessment methods. *Schizophrenia Research*, 87:32-44, 2006.
  55. Gur, R.E., Turetsky, B.I., Loughhead, J., Snyder, W., Kohler, C., Elliott, M., Pratiwadi, R., Ragland, J.D., Bilker, W.B., Siegel, S.J., Kanes S.J., Arnold, S.E., Gur, R.C.: Visual attention circuitry in schizophrenia investigated with an oddball event-related fMRI study. *American Journal of Psychiatry*, 164:442-449, 2007.
  56. Wolf, D.H., Gur, R.C., Valdez, J.N., Loughhead, J., Elliott, M.A., Gur, R.E., Ragland, J.D. Alterations of fronto-temporal connectivity during word encoding in schizophrenia. *Psychiatry Research: Neuroimaging*, 154:221-232, 2007.
  57. Gur, R.E., Nimgaonkar, V.L., Almasy, L., Calkins, M.D., Ragland, J.D., Pogue-Geile, M.F., Kanes, S., Blangero, J., Gur, R.C.: Neurocognitive endophenotypes in a multiplex multigenerational family study of schizophrenia. *American Journal of Psychiatry*, 164:813-819, 2007.

58. Gur, R.C., Turetsky, B.I., Loughhead, J., Waxman, J., Snyder, W., Ragland, J.D., Elliott, M., Bilker, W.B., Arnold, S.E., Gur, R.E.: Hemodynamic Responses in Neural Circuitries for Detection of Visual Target and Novelty: An Event-Related fMRI Study. *Human Brain Mapping*, 28:263-274. 2007.
59. Ragland, J.D., Yoon, J., Minzenberg, M.J., Carter, C.S.: Neuroimaging of cognitive disability in schizophrenia: Search for a pathophysiological model. *International Review of Psychiatry*, 19:417-427, 2007.
60. Ragland, J.D., Moelter, S.T., Bhati, M.T., Valdez, J.N., Kohler, C.G., Siegel, S.J., Gur, R.C., Gur R.E.: Effect of Retrieval Effort and Switching Demand on fMRI Activation During Semantic Word Generation in Schizophrenia. *Schizophrenia Research*, 99:312-323, 2008.
61. Ranganath, C., Minzenberg, M., Ragland, J.D.: The Cognitive Neuroscience of Memory Function and Dysfunction in Schizophrenia. *Biological Psychiatry*, 64:417-427, 2008.
62. Yoon, J.H., Minzenberg, M.D., Ursu, S., Walters, R., Wendelken, C., Ragland, J.D., Carter, C.S.: Association of Dorsolateral Prefrontal Cortex Dysfunction With Disrupted Coordinated Brain Activity in Schizophrenia: Relationship With Impaired Cognition, Behavioral Disorganization, and Global Function. *American Journal of Psychiatry*, 165:1006-1014, 2008.
63. Dickinson D., Ragland, J.D., Gold, J.M., Gur, R.C.: General and Specific Cognitive Deficits in Schizophrenia: Goliath Defeats David? *Biological Psychiatry*, 64:18-25, 2008.
- 64 Yoon, J.H., Tamir, D., Minzenberg, M.J., Ragland, J.D., Ursu, S., Carter, C.S.: Multivariate Pattern Analysis of Functional Magnetic Resonance Imaging Data Reveals Deficits in Distributed Representations in Schizophrenia. *Biological Psychiatry*, 64:1035-1041, 2008.
65. Gur, R.C., Ragland, J.D., Reivich, M., Greenberg, J., Alavi, A., Gur, R.E.: Regional Differences in the Coupling Between Resting Cerebral Blood Flow and Metabolism May Indicate Action Preparedness as a Default State. *Cerebral Cortex*, 19:375-382, 2009.
66. Ragland, J.D., Cools, R., Frank, M., Pizzagalli, D.A., Preston, A., Ranganath, C., Wagner, A.D.: CNTRICS Final Task Selection: Long-term Memory. *Schizophrenia Bulletin*, 35:197-212, 2009.
67. Ragland, J.D., Laird, A.R., Ranganath, C., Blumenfeld, R.S., Gonzales, S.M., Glahn, D.C.: Prefrontal Activation Deficits During Episodic Memory in Schizophrenia. *American Journal of Psychiatry*, 166:863-874, 2009.
68. Yoon, J.H., Rokem, A.S., Silver, M.A., Minzenberg, M.J., Ursu, S., Ragland, J.D., Carter, C.S.: Diminished Orientation-Specific Surround Suppression of Visual Processing in Schizophrenia. *Schizophrenia Bulletin*, 35:1078-1084, 2009.
69. Calkins, M.E., Tepper, P., Gur, R.C., Ragland, J.D., Klei, L., Wiener, H.W., Richard, J., Savage, R.M., Allen, T., O'Jile, J., Devlin, B., Kwentus, J., Aliyu, M.H., Bradford, D., Edwards, N., Lyons, P.D., Nimgaonkar, V.L., Santos, A.B., Go, R.C.P., Gur, R.E.: Project Among African-Americans to Explore Risks for Schizophrenia (PAARTNERS): Evidence for Impairment and Heritability of Neurocognitive Functioning in Families of

- Schizophrenia Patients. *American Journal of Psychiatry*, 167:459-472, 2010.
70. Yoon, J., Maddock, R., Rokem, A., Silver, M., Minzenberg, M.J., Ragland, J.D., Carter, C.S.: Gamma-Aminobutyric Acid Concentration is Reduced in Visual Cortex in Schizophrenia and Correlates with Orientation-Specific Surround Suppression. *Journal of Neuroscience*, 30:3777-3781, 2010.
  71. Leitman, D.I., Wolf, D.H., Ragland, J.D., Laukka, P., Loughhead, J., Valdez, J.N., Javitt, D.C., Turetsky, B.I., Gur, R.C.: "It's Not What You Say, But How You Say it": A Reciprocal Temporo-frontal Network for Affective Prosody. *Frontiers of Human Neuroscience*, 4:1-13, 2010.
  72. Hannula, D.E., Ranganath, C., Ramsay, I.S., Solomon M., Yoon, J., Niendam, T.A., Carter, C.S., Ragland, J.D.: Use of Eye Movement Monitoring to Examine Item and Relational Memory in Schizophrenia. *Biological Psychiatry*, 68:610-616, 2010.
  73. Ursu, S., Kring, A.M., Gard, M.G., Minzenberg, M.J., Yoon, J.H., Ragland, J.D., Solomon, M., Carter, C.S.: Prefrontal Cortical Deficits and Impaired Cognition-Emotion Interactions in Schizophrenia. *American Journal of Psychiatry*, 168:276-285, 2011.
  74. Solomon, M., Olsen, E., Niendam, T., Ragland, J.D., Yoon, J., Minzenberg, M., Carter, C.S.: From lumping to splitting and back again: Atypical social and language development in individuals with clinical-high-risk for psychosis, first episode schizophrenia, and autism spectrum disorders. *Schizophrenia Research*, 131:146-151, 2011.
  75. Leitman, D.I., Wolf, D.H., Laukka, P., Ragland, J.D., Valdez, J.N., Turetsky, B.I., Gur, R.E., Gur, R.C.: Not Pitch Perfect: Sensory Contributions to Affective Communication Impairment in Schizophrenia. *Biological Psychiatry*, 70:611-618, 2011.
  76. Ragland, J.D., Blumenfeld, R.S., Ramsay, I.S., Yonelinas, A., Yoon, J., Solomon, M., Carter, C.S., Ranganath, C.: Neural Correlates of Relational and Item-Specific Encoding During Working and Long-Term Memory in Schizophrenia, *NeuroImage*, 59:1719-1726, 2012.
  77. Ragland, J.D., Ranganath, C., Barch, D. M., Gold, J.M., Haley, B., MacDonald, A.W., III, Silverstein, S. M., Strauss, M.E., Yonelinas, A.P., Carter, C.S.: Relational and Item-Specific Encoding (RISE): Task Development and Psychometric Characteristics, *Schizophrenia Bulletin*, 38:114,124, 2012.
  78. Barch, D.M., Carter, C.S., Dakin, S., Gold, J., Luck, S., MacDonald III, A.W., Ragland, J.D., Silverstein, S., & Straus, M.E.: The clinical translation of a measure of gain control: the Contrast-Contrast Effect, *Schizophrenia Bulletin*, 38:135-143, 2012.
  79. Gold, J.M., Barch, D.M., Carter, C.S., Dakin, S., Harvey, P., Keefe, R., Luck, S.J., MacDonald III, A.W., Ragland, J.D., Ranganath, C., Kovacs, I., Silverstein, S.M., Straus, M.E.: Clinical, functional and inter-task correlations of measures developed by the Cognitive Neuroscience Test Reliability and Clinical Applications for Schizophrenia consortium. *Schizophrenia Bulletin*, 38:144-152, 2012.
  80. Henderson, D., Poppe, A., Barch, D.M., Carter, C.S., Gold, J., Luck, S., Ragland, J.D., Silverstein, S., Straus, M.E., MacDonald III, A.W.:



- Optimization of a context processing task for use in clinical applications, *Schizophrenia Bulletin*, 38:104-113, 2012.
81. Silverstein, S., Keane, B., Barch, D.M., Carter, C.S., Dakin, S., Gold, J., Luck, S., MacDonald III, A.W., Ragland, J.D., Straus, M.E.: Optimization of a measure of visual integration for use in schizophrenia treatment research: The Jittered-Orientation Visual-Integration Task (JOVI), *Schizophrenia Bulletin*, 38:125-134, 2012.
  82. Ragland, J.D., Cohen, N.J., Cools, R., Frank, M.J., Hannula, D.E., Ranganath, C.: CNTRICS Imaging Biomarkers Final Task Selection: Long-term Memory and Reinforcement Learning. *Schizophrenia Bulletin*, 38:62-72, 2012.
  83. Libby, L.A., Ragland, J.D.: fMRI as a Measure of Cognition Related Brain Circuitry in Schizophrenia. *Current Topics in Behavioral Neuroscience*, 11:253-268, 2012.
  84. Yoon, J.H., Nguyen, D.V., McVay, L.M., Deramo, P., Minzenberg, M.J., Ragland, J.D., Niendam, T., Solomon, M., Carter, C.S.: Automated classification of fMRI during cognitive control identifies more severely disorganized subjects with schizophrenia. *Schizophrenia Research*, 135:28-33, 2012.
  85. Libby, L.A., Ekstrom, A.D., Ragland, J.D., Ranganath, C.: Differential connectivity of perirhinal and parahippocampal cortices within human hippocampal subregions revealed by high-resolution functional imaging. *Journal of Neuroscience*, 32:6550-6560, 2012.
  86. Keane, B.P., Silverstein, S.M., Barch, D.M., Carter, C.S., Gold, J., Kovács, I., MacDonald, A.III., Ragland, J.D., Strauss, M. E.: The spatial range of contour integration deficits in schizophrenia. *Experimental Brain Research*, 220:251-259, 2012.
  87. Libby, L.A., Yonelinas, A.P., Ranganath, C., Ragland, J.D.: Recollection and familiarity in schizophrenia: A quantitative review. *Biological Psychiatry*, 73:944-950, 2012.
  88. Owoso, A., Barch, D.M., Carter, C.S., Gold, J., MacDonald III, A., Ragland, J.D., Silverstein, S., Strauss, M.E.: Cognition in Schizophrenia and Schizoaffective Disorder: Impairments That Are More Similar Than Different. *Psychological Medicine*, 43:2635-2645, 2013.
  89. Paz-Alonso, P.M., Ghetti, S., Ramsay, I., Solomon, M., Yoon, J., Carter, C.S., Ragland, J.D.: Semantic processes leading to true and false memory formation in schizophrenia. *Schizophrenia Research*, 147:320-325, 2013.
  90. Swaab, T.Y., Boudewyn, M.A., Long, D.L., Luck, S.J., Kring, A.M., Ragland, J.D., Ranganath, C., Lesh, T., Niendam, T., Solomon, M., Mangun, G.R., Carter, C.S.: Spared and Impaired Spoken Discourse Processing in Schizophrenia: Effects of Local and Global Language Context. *The Journal of Neuroscience*, 33:155578-155587, 2013.
  91. Lesh, T.A., Westphal, A.J., Niendam, T.A., Yoon, J.H., Minzenberg, M.J., Ragland, J.D., Solomon, M., Carter, C.S.: Proactive and reactive cognitive control and dorsolateral prefrontal cortex dysfunction in first episode schizophrenia. *Neuroimage Clinical*, 2:590-599, 2013.
  92. Solomon, M., Yoon, J., Ragland, J.D., Niendam, T., Lesh, T., Fairbrother, W., Carter, C.S.: The development of the neural substrates of cognitive control

- in adolescents with autism spectrum disorders. *Biological Psychiatry*, 76:412-421, 2014.
93. Niendam, T.A., Yoon, J., Westphal, A.J., Hutchinson, N., Ragland, J.D., Solomon, M., Minzenberg, M., Carter, C.S.: Impaired context processing as a potential marker of psychosis risk state. *Psychiatry Research: Neuroimaging*, 221:13-20, 2014.
  94. Sheffield, J.M., Gold, J.M., Strauss, M.E., Carter, C.S., MacDonald, A.W., Ragland, J.D., Silverstein, S.M., Barch, D.M.: Common and Specific Cognitive Deficits in Schizophrenia. *Cognitive Affective Behavioral Neuroscience*, 14:161-174, 2014.
  95. Strauss, M.E., McLouth, C.J., Barch D.M., Carter, C.S., Gold, J.M., MacDonald, A.W. III, Ragland, J.D., Ranganath, C., Keane, B.P., Silverstein, S.M.: Temporal stability and moderating effects of age and sex on CNTRaCS task performance. *Schizophrenia Bulletin*, 40:835-844, 2014.
  96. Flegal, K.E., Marin-Gutierrez, A., Ragland, J.D., Ranganath, C.: Brain mechanisms of successful recognition through retrieval of semantic context. *Journal of Cognitive Neuroscience*, 26:1694-1704, 2014.
  97. Wang, W-C, Montchal, M.E., Yonelinas, A.P., Ragland, J.D.: Hippocampal and parahippocampal cortex volume predict recollection in schizophrenia. *Schizophrenia Research*, 157:319-320, 2014.
  98. McFarlane, W., Levin, B., Travis, L., Lucas, F., Lynch, S., Verdi, M., Williams, D., Calkins, R., Adelsheim, S., Carter, C., Cornblatt, B., Taylor, S., Auther, A., McFarland, B., Melton, R., Migliorati, M., Niendam, T., Ragland, J., Sale, T., Salvador, M., Spring, E.: Clinical and functional outcomes after 2 years in the Early Detection and Intervention for the Prevention of Psychosis multisite effectiveness trial. *Schizophrenia Bulletin*, 41:30-43, 2014.
  99. Yoon, J.H., Westphal, A.J., Minzenberg, M.J., Niendam, T., Ragland, J.D., Lesh, T., Solomon, M., Carter, C.S.: Task-evoked substantia nigra hyperactivity associated with prefrontal hypofunction, prefrontonigral disconnectivity and nigrostriatal connectivity predicting psychosis severity in medication naïve first episode schizophrenia. *Schizophrenia Research*, 159:521-6, 2014.
  100. Fisher, M., Loewy, R., Carter, C.S., Lee, A., Ragland, J.D., Niendam, T., Schlosser, D., Pham, L., Miskovich, T., Vinogradov, S.: Neuroplasticity-based auditory training via laptop computer improves cognition in young individuals with recent onset schizophrenia. *Schizophrenia Bulletin*, 41:250-8, 2015.
  101. Solomon, M., Frank, M.J., Ragland, J.D., Smith, A.C., Niendam, T.A., Lesh, T.A., Grayson, D., Beck, J.S., Matter, J.C., Carter, C.S.: Feedback-driven trial-by-trial learning in autism spectrum disorders. *American Journal of Psychiatry*, 172:173-81, 2015.
  102. Kappenman, E. S., Luck, S. J., Kring, A. M., Lesh, T. A., Mangun, G. R., Niendam, T., Ragland, J. D., Ranganath, C., Solomon, M., Swaab, T. Y., & Carter, C. S.: Electrophysiological evidence for impaired control of motor output in schizophrenia. *Cerebral Cortex*, 26:1891-1899, 2016.

103. Lesh, T.A., Tanase, C., Geib, B.R., Niendam, T.A., Yoon, J.H., Minzenberg, M.J., Ragland, J.D., Solomon, M., Carter, C.S.: A Multimodal Analysis of Antipsychotic Effects on Brain Structure and Function in First-Episode Schizophrenia. *JAMA Psychiatry*, 72:226-34, 2015.
104. Sheffield, J.M., Repovs, G., Harms, M.P., Carter, C.S., Gold, J.M., MacDonald, A.M., Ragland, J.D., Silverstein, S.M., Godwin, D., Barch, D.M.: Fronto-parietal and cingulo-opercular network integrity and global cognition in health and schizophrenia. *Neuropsychologia*, 73:82-93, 2015.
105. Tso, I.F., Taylor, S.F., Grove, T.B., Niendam, T., Adelsheim, S., Auther, A., Cornblatt, B., Carter, C.S., Calkins, R., Ragland, J.D., Sale, T., McFarlane, W.R.: Factor analysis of the Scale of Prodromal Symptoms: data from the Early Detection and Intervention for the Prevention of Psychosis Program. *Early Interv Psychiatry*, (Epub: December 21, 2014).
106. Ragland, J.D., Ranganath, C., Harms, M.P., Barch, D.M., Gold, J.M., Layher, E., Lesh, T.A., MacDonald, A.W., Niendam, T.A., Phillips, J., Silverstein, S.M., Yonelinas, A.P., Carter, C.S.: Functional and neuroanatomical specificity of episodic memory dysfunction in schizophrenia: An fMRI study of the relational and item-specific encoding task. *JAMA Psychiatry*, 72:909-16, 2015.
107. Silverstein, S.M., Harms, M.P., Carter, C.S., Gold, J.M., Keane, B.P., MacDonald, A., Ragland, J.D., Barch, D.M.: Cortical Contributions to Impaired Contour Integration in Schizophrenia. *Neuropsychologia*, 75:469–480, 2015.
108. Sheffield, J.M., Repovs, G., Harms, M.P., Carter, C.S., Gold, J.M., MacDonald, A.W., Ragland, J.D., Silverstein, S.M., Godwin, D., Barch, D.M.: Evidence for Accelerated Decline of Functional Brain Network Efficiency in Schizophrenia. *Schizophrenia Bulletin*, 42(3):753-61, 2016.
109. Lopez-Garcia, P., Lesh, T.A., Salo, T., Barch, D.M., MacDonald, A.W. 3rd, Gold, J.M., Ragland, J.D., Strauss, M., Silverstein, S.M., Carter, C.S.: The neural circuitry supporting goal maintenance during cognitive control: a comparison of Expectancy AX-CPT and Dot Probe Expectancy Paradigms. *Cognitive, Affective, and Behavioral Neuroscience*, 16(1):164-75, 2016.
110. Lynch, S., McFarlane, W., Joly, B., Adelsheim, S., Auther, A., Cornblatt, B., Migliorati, M., Ragland, J.D., Sale, T., Spring, E., Calkins, R., Carter, C., Jaynes, R., Taylor, S.: The early detection for the prevention of psychosis program: Community outreach and early identification at six sites across the United States. *Psychiatric Services*, 67(5):510-6, 2016.
111. Ragland, J.D., Ranganath, C., Phillips, J., Boudewyn, M.A., Kring, A.M., Lesh, T.A., Long, D.L., Luck, S.J., Niendam, T.A., Solomon, M., Swaab, T.A., Carter, C.S.: Cognitive Control of Episodic Memory in Schizophrenia: Differential Role of Dorsolateral and Ventrolateral Prefrontal Cortex. *Frontiers in Human Neuroscience*, 9(604):1-10, 2015.
112. Solomon, M., Ragland, J.D., Niendam, T.A., Lesh, T.A., Beck, J.S., Matter, J.C., Frank, M.J., Carter, C.S.: Atypical learning in autism spectrum disorders: An fMRI study of transitive inference. *Journal of the American Academy of Child and Adolescent Psychiatry*, 54(11):947-55, 2016.

113. Poppe, A., Barch, D., Carter, C., Gold, J., Ragland, J., Silverstein, S., MacDonald, A.: Reduced Frontoparietal Activity in Schizophrenia is Linked to a Specific Deficit in Goal Maintenance: a Multi-site Functional Imaging Study. *Schizophrenia Bulletin*, 42:1149-1157, 2016.
114. Solomon, M McCauley, J., Iosif, A.M., Carter, C.S., Ragland, J.D.: Cognitive control and episodic memory in adolescents with autism spectrum disorders. *Neuropsychologia*, 89:31-41, 2016.
115. Sousa, A., Gomar, J.J., Ragland, J.D., Conejero-Goldberg, C., Buthorn, J., Keehlisen, L., Huey, T.E., Koppel, J., Gordon, M.L., Christen, E., Goldberg, T.E.: The Relational and Item-Specific Encoding Task in Mild Cognitive Impairment and Alzheimer Disease. *Dement Geriatr Cogn Disord*, 42:265-277, 2016.
116. Barch, D.M., Carter, C.S., Gold, J.M., Johnson, S.L., Kring, A.M., MacDonald, A.W., Pizzagalli, D.A., Ragland, J.D., Silverstein, S.M., Strauss, M.E.: Explicit and implicit reinforcement learning across the psychosis spectrum. *Journal of Abnormal Psychology*, 126:694-711, 2017.
117. Ragland, J.D., Layher, E., Hannula, D., Niendam, T., Lesh, T., Solomon, M., Carter, C.S., Ranganath, C.: Impact of Schizophrenia on Anterior and Posterior Hippocampus During Memory for Complex Scenes. *NeuroImage: Clinical*, 13:82-88, 2016.
118. Gomar, J.J., Ragland, J.D., Ullug, A., Sousa, A., Huey, T.E., Conejero-Goldberg, C., Davies, P., Goldberg, T.: Differential Medial Temporal Lobe Morphometric Predictors of Relational and Item Encoded Memories in Healthy Individuals and in Individuals with Mild Cognitive Impairment or Alzheimer's Disease. *Alzheimer's & Dementia: Translational Research & Clinical Interventions*, 3:238-246, 2017.
119. Greenland-White, S., Niendam, T.A., Ferrer, E., Carter, C.S., Ragland, J.D.: Episodic Memory Functions in First Episode Psychosis and Clinical High Risk Individuals. *Schizophrenia Research*, 188:151-157, 2017.
120. Ray, K.L., Lesh, T.A., Howell, A.M., Salo, T.P., Ragland, J.D., MacDonald, A.W., Gold, J.M., Silverstein, S.M., Barch, D.M., Carter, C.S.: Functional network changes and cognitive control in schizophrenia. *Neuroimage Clinical*, 15:161-170, 2017.
121. Smucny, J., Lesh, T.A., Newton, K., Niendam, T., Ragland, J.D., Carter, C.S.: Levels of Cognitive Control: A Functional Magnetic Resonance Imaging-Based Test of an RDoC Domain Across Bipolar Disorder and Schizophrenia. *Neuropsychopharmacology*, 43:598-606, 2018.
122. Carrion, R.E., Walder, D.J., Auther, A.M., McLaughlin, D., Zyla, H.O., Adelsheim, S., Calkins, R., Carter, C.S., McFarland, B., Melton, R., Niendam, T., Ragland, J.D., Sale, T.G., Taylor, S.F., McFarland, W.R., Cornblatt, B.A.: From the psychosis prodrome to the first-episode of psychosis: No evidence of a cognitive decline. *J. Psychiatric Research*, 96:231-238, 2017.
123. Ermel, J., Carter, C. S., Gold, J. M., MacDonald, A. W., Ragland, J. D., Silverstein, S. M., & Strauss, M. E., & Barch, D. M.: Self versus informant reports on the specific levels of functioning scale: Relationships to

- depression and cognition in schizophrenia and schizoaffective disorder. *Schizophrenia Research: Cognition*, 9:1-7, 2017.
124. Javitt, D.C., Carter, C.S., Krystal, J.H., Kantrowitz, J.T., Girgis, R.R., Kegeles, L.S., Ragland, J.D., Maddock, R.J., Lesh, T.A., Tanase, C., Corlett, P.R., Rothman, D.L., Mason, G., Qiu, M., Robinson, J., Potter, W.Z., Carlson, M., Wall, M.M., Choo, T.H., Grinband, J., Lieberman, J.A.: Utility of Imaging-Based Biomarkers for Glutamate-Targeted Drug Development in Psychotic Disorders: A Randomized Clinical Trial. *JAMA Psychiatry*, 75:11-19, 2018.
  125. Savill, M., Skymba, H.V., Niendam, T.A., Loewy, R.L., Lesh, T.A., Ragland, J.D., Carter, C.S., Goldman, H.H.: Acceptability, Barriers, and Facilitators to Implementing a Psychosis Screening Procedure in Different Healthcare Settings – A Qualitative Interview Study of Healthcare Providers. *Psychiatric Services*, 69:689-695, 2018.
  126. Ramsay, I.S., Ma, S., Fisher, M., Loewy, R.L., Ragland, J.D., Niendam, T., Carter, C.S., Vinogradov, S.: Model selection and prediction of outcomes in recent onset schizophrenia patients who undergo cognitive training. *Schizophr Res Cogn*, 11:1-5, 2017.
  127. Niendam, T.A., Ray, K.L., Iosif, A.M., Lesh, T.A., Ashby, S., Patel, P., Smucny, J., Ferrer, E., Solomon, M., Ragland, J.D., Carter, C.S.: Association of Age at Onset and Longitudinal Course of Prefrontal Function in Youth With Schizophrenia. *JAMA Psychiatry*, 75(12):1252-1260, 2018.
  128. Maddock, R.J., Caton, M.D., Ragland, J.D.: Estimating glutamate and Glx from GABA-optimized MEGA-PRESS: Off-resonance but not difference spectra values correspond to PRESS values. *Psychiatry Research: Neuroimaging*, 279:22-30, 2018.
  129. Mizrak, E., Kim, K., Roberts, B., Ragland, J.D., Carter, C.S., Ranganath, C.: Impact of oscillatory tDCS targeting left prefrontal cortex on source memory retrieval. *Cognitive Neuroscience*, 9:194-207, 2018.
  130. Libby, L.A., Reagh, Z.M., Bouffard, N.R., Ragland, J.D., Ranganath, C.: The hippocampus generalizes across memories that share item and context information. *The Journal of Cognitive Neuroscience*, 31(1):24-35, 2019.
  131. Gold, J.M., Barch, D.M., Feuerstahler, L.M., Carter, C.S., MacDonald, A.W. 3rd, Ragland, J.D., Silverstein, S.M., Strauss, M.E., Luck, S.J.: Working Memory Impairment Across Psychotic disorders. *Schizophr Bull.*, 45(4):804-812, 2019.
  132. Guo, J.Y., Ragland, J.D., Carter, C.S.: Memory and Cognition in Schizophrenia. *Molecular Psychiatry*, 24(5):633-642, 2018.
  133. Flegal, K.E., Ragland, J.D., Ranganath, C., Adaptive task difficulty influences neural plasticity and transfer of training, *NeuroImage*, 188:111-121, 2018.
  134. Smucny, J., Barch, D., Gold, J.M., Strauss, M.E., MacDonald III, A.W., Boudewyn, M.A., Ragland, J.D., Silverstein, S.M., Carter, C.S.: Cross-Diagnostic Analysis of Cognitive Control and Attention Lapsing in Mental Illness: Insights from the CNTRACS Consortium. *Schizophrenia Research*, 208:377-383, 2019.
  135. Chari, S., Minzenberg, M., Solomon, M., Ragland, J.D., Carter, C.S., Yoon, J.: Impaired prefrontal functional connectivity associated with working

- memory task performance and disorganization despite intact activations in schizophrenia. *Psychiatry Research: Neuroimaging*, 287:10-18, 2019.
136. Smucny, J., Iosif, A-M., Eaton, N.R., Lesh, T.A., Ragland, J.D., Barch, D.M., Gold, J.M., Strauss, M.E., MacDonald, A.W. 3rd, Silverstein, S.M., Carter, C.S.: Latent Profiles of Cognitive Control, Episodic Memory, and Visual Perception Across Psychiatric Disorders Reveal a Dimensional Structure. *Schizophrenia Bulletin*, 46(1):154-162, 2019.
  137. Lesh, T., Maddock, R., Howell, A., Wang, H., Tanase, C., Ragland, J.D., Niendam, T.A., Carter, C.S.: Extracellular Free Water and Glutathione in First Episode Psychosis – A Multi-modal Investigation of an Inflammatory Model for Psychosis. *Molecular Psychiatry*, Epub: May, 28, 2019.
  138. Fleming, L.M., Javitt, D.C., Carter, C.S., Kantrowitz, J.T., Girgis, R.R., Kegeles, L.S., Ragland, J.D., Maddock, R.J., Lesh, T.A., Tanase, C., Robinson, J., Potter, W.Z., Carlson, M., Wall, M.M., Choo, T.H., Grinband, J., Lieberman, J., Krystal, J.H., Corlett, P.R.: A multicenter study of ketamine effects on functional connectivity: Large scale network relationships, hubs and symptom mechanisms. *Neuroimage Clin*, 22:101739, 2019.
  139. Hogeveen, J., Krug, M.K., Geddert, R.M., Ragland, J.D., Solomon, M.: Compensatory Posterior Medial Network Recruitment Supports Preservation of Episodic Memory in Autism Spectrum Disorder. *Biological Psychiatry: CNNI*, 5:97-109, 2020.
  140. Guo, J.Y., Niendam, T.A., Auther, A.M., Carrion, R.E., Cornblatt, B.A., Ragland, J.D., Adelsheim, S., Calkins, R., Sale, T.G., Taylor, S.F., McFarlane, W.R., Carter, C.S.: Predicting psychosis risk using a specific measure of cognitive control: a 12-month longitudinal study. *Psychological Medicine*, Epub: Sept 11, 2019.
  141. Yoon, J.H., Maddock, R.J., Cui, E.D., Minzenberg, M.J., Niendam, T.A., Lesh, T.A., Solomon, M., Ragland, J.D., Carter, C.S.: Reduced In Vivo Visual Cortex GABA in Schizophrenia, a Replication in a Recent Onset Sample. *Schizophrenia Research*, In Press, 2019.
  142. Smucny, J., Lesh, T.A., Zarubin, V.C., Niendam, T.A., Ragland, J.D., Tully, L.M., Carter, C.S.: One-Year Stability of the Frontoparietal Network during Cognitive Control in Recent Onset Schizophrenia: A 3T fMRI Study. *Schizophrenia Bulletin*, In Press, 2019.
  143. Ragland, J.D., Maddock, R.M., Hurtado, M., Tanase, C., Lesh, T., Carter, C., Ranganath, C.: Disrupted GABAergic Facilitation of Working Memory Performance in People with Schizophrenia. *NeuroImage Clinical*, In Press, 2019.
  144. Ray, K.L., Ragland, J.D., MacDonald, A.W., Gold, J.M., Silverstein, S.M., Barch, D.M., Carter, C.S.: Dynamic reorganization of the frontal parietal network during cognitive control and episodic memory. *Cognitive, Affective, & Behavioral Neuroscience*, Epub: Dec 6, 2019.
  145. Guo, J.Y., Lesh, T.A., Niendam, T.A., Ragland, J.D., Tully, L.M., Carter, C.S.: Brain free water alterations in first-episode psychosis: a longitudinal analysis of diagnosis, course of illness, and medication effects. *Psychological Medicine*, Epub: Jan 14, 2020.

146. Puig, O., Fisher, M., Lowey, R., Miley, K., Ramsay, I.S., Carter, C.S., Ragland, J.D., Niendam, T., Vinogradov, S. Early- versus adult-onset schizophrenia as a predictor of response to neuroscience-informed cognitive training. *Journal of Clinical Psychiatry*, Epub: March 4, 2020.

**Invited Commentaries, Editorials, Reviews, Chapters (print or other media):**

147. Ragland, J.D.: Book Review of, Megargee, E.J. "A guide to obtaining a psychology internship". *Clinical Psychology Review* 11:782-783, 1992.
148. Gur, R.C., Ragland, J.D., Gur, R.E.: Cognitive changes in schizophrenia - a critical look. *International Review of Psychiatry* 9:449-457, 1997.
149. Gur, R.C., Moelter, S.T., Ragland, J.D.: "Learning and memory in schizophrenia". In, Sharma, T., & Harvey, P. (Eds.), *Cognition in Schizophrenia*. Oxford University Press: Oxford, G.B., 1999.
150. Ragland, J.D.: Profiles of Neuropsychologic Function in Schizophrenia. *Current Psychiatry Reports*, 5:299-302, 2003.
151. Ragland, J.D.: "Left prefrontal function and semantic organization during encoding and retrieval in healthy and psychiatric populations". In, Risberg & Grafman (Eds.), *The Frontal Lobes: Development, Function and Pathology*. Cambridge University Press: Cambridge, G.B., 2006.
152. Ragland, J.D.: "Functional Imaging in Schizophrenia". In Hillary & DeLuca (Eds.), *Functional Neuroimaging in Clinical Populations*. Guilford Publications, Inc.: New York, N.Y., 2007.
153. Flegal, K.E., Ranganath, C., Ragland, J.D.: "Episodic Memory in Schizophrenia". In, Mishara, Corlett, Fletcher & Schwartz (Eds.), *Phenomenological Neuropsychiatry: How Patient Experience Bridges Clinic with Clinical Neuroscience*. Springer Clinical Medicine & Bioscience Group: New York, N.Y., 2012.
154. Ragland, J.D., Solomon, M.: "Categorical Dimensions of Social Impairment and Disrupted Functional Connectivity in Autism Spectrum Disorders: When Does Continuous Become Discrete?" *Biological Psychiatry*, 80:90-91, 2016.
155. Krystal, J.H., Abi-Dargham, A., Akbarian, S., Arnsten, A.F.T., Barch, D.M., Bearden, C.E., Braff, D.L., Brown, E.S., Bullmore, E.T., Carlezon Jr., W.A., Carter, C.S., Cook Jr., E.H., Daskalakis, Z.J., DiLeone, R.J., Duman, R.S., Grace, A.A., Hariri, A.R., Harrison, P.J., Hiroi, N., Kenny, P.J., Kleinman, J.E., Krystal, A.D., Lewis, D.A., Lipska, B.K., Marder, S.R., Mason, G.F., Mathalon, D.H., McClung, C.A., McDougale, C.J., McIntosh, A.M., McMahon, F.J., Mirnics, K., Monteggia, L.M., Narendran, R., Nestler, E.J., Neumeister, A., O'Donovan, M.C., Öngür, D., Pariante, C.M., Paulus, M.P., Pearlson, G., Phillips, M.L., Pine, D.S., Pizzagalli, D.A., Pletnikov, M.V., Ragland, J.D., Rapoport, J.L., Ressler, K.J., Russo, S.J., Sanacora, G., Sawa, A., Schatzberg, A.F., Shaham, Y., Shamy-Tsoory, S.G., Sklar, P., State, M.W., Stein, M.B., Strakowski, S.M., Taylor, S.F., Turecki, G., Turetsky, B.I., Weissman, M.M., Zachariou, V., Zarate Jr., C.A., Zubieta, J-K.: "Constance E. Lieber, Theodore R. Stanley, and the Enduring Impact of Philanthropy on Psychiatry Research" *Biological Psychiatry*, 80:84-86, 2016.

156. Bauman, M.D., Ragland, J.D., Schumann, C.M.: Feeling and Remembering: Effects of Psychosis on the Structure and Function of the Amygdala and Hippocampus. In: Tamminga CA, Ivleva EI, Reininghaus U, Van Os J, eds. Dimensions of Psychosis: Comprehensive Conceptualization and Treatments. New York, NY: Oxford University Press. In Press.
157. Ragland, J.D.: Relating Basal and Phasic Hippocampal Activity in People with Psychosis: A Translational Bridge to Understanding Memory Deficits? *American Journal of Psychiatry*, 176(12):979-981, 2019.
158. Smucny, J., Zarubin, V.C., Ragland, J.D., Carter, C.S.: Are Visual Memory Deficits in Recent Onset Psychosis Degenerative? *American Journal of Psychiatry*, In Press, 2019.

**Abstracts: (past 5 years)**

1. Solomon, M., Lesh, T.A., Niendam, T.A., Matter, J.C., Beck, J.S., Carter, C.S., Ragland, J.D. The neural substrates of the generalization of learning in autism spectrum disorders (ASD). (69th Annual Meeting of the Society of Biological Psychiatry, New York, NY, USA, 2014).
2. White, S., Niendam, T.A., Maryuama, B., Lesh, T.A., Yoon, J.H., Solomon, M., Carter, C.S., Ragland, J.D. Performance on the relational and item specific memory encoding task (RiSE) in individuals at clinical high risk for psychosis. (69th Annual Meeting of the Society of Biological Psychiatry, New York, NY, USA, 2014).
3. Lesh, T.A., Geib, B., Niendam, T.A., Minzenberg, M.J., Yoon, J., Ragland, J.D., Solomon, M., Carter, C.S. Fronto-parietal dysfunction and cognitive control deficits in first-episode psychosis patients with schizophrenia and bipolar disorder. (69th Annual Meeting of the Society of Biological Psychiatry, New York, NY, USA, 2014).
4. Poppe, A., Barch, D., Carter, C., Ragland, D., Silverstein, S., MacDonald, A. Test-retest reliability of GLM and ICA in schizophrenia patients and healthy controls. (69th Annual Meeting of the Society of Biological Psychiatry, New York, NY, USA, 2014).
5. Lesh, T., Maddock, R.J., Salo, T., Tanase, C., Ragland, J.D., Niendam, T.A., Solomon, M., Carter, C. Diffusion measures of free water and 1J-MRS measures of glutathione in first episode patients with schizophrenia – A multi-modal investigation of an inflammatory model for psychosis. (53rd Annual Meeting of the American College of Neuropsychopharmacology, Phoenix, AZ, USA, 2014).
6. Solomon, M., McCauley, J., Lesh, T., Niendam, T., Beck, J., Carter, C., Ragland, J.D. Bootstrapping the hippocampus? Atypical learning characterizes adolescents with autism spectrum disorders. (53rd Annual Meeting of the American College of Neuropsychopharmacology, Phoenix, AZ, USA, 2014).
7. Maddock, R., Fernandez, D., Casazza, G., Tanase, C., Maddock, M., Ragland, J.D., Rokem, A., Silver, M., Yoon, J. The brain state induced by physical activity: Effects on cortical glutamate, GABA and neuroplasticity in humans. (53rd Annual Meeting of the American College of Neuropsychopharmacology, Phoenix, AZ, USA, 2014).



8. Ragland, J.D., Hannula, D.E., Layher, E., Phillips, J., Carter, C.S., Lesh, T.A., Niendam, T.A., Solomon, M., Ranganath, C. Dissociation of Hippocampally Mediated Relational versus Item-Specific Memory Deficits in Schizophrenia using Eye-Movement Monitoring During fMRI. (53<sup>rd</sup> Annual Meeting of the American College of Neuropsychopharmacology, Phoenix, AZ, USA, 2014).
9. Flegal, K.E., Ragland, J.D., Ranganath, C. Adaptive task difficulty influences functional neuroplasticity in cognitive training. (Annual Meeting of the Cognitive Neuroscience Society, San Francisco, CA, USA, 2015)
10. Lesh, T., Niendam, T., Ragland, J.D., Carter, C. Effects of past moderate cannabis use on cognition in first episode schizophrenia. (54<sup>th</sup> Annual Meeting of the American College of Neuropsychopharmacology, Hollywood, FL, USA, 2015).
11. Carter, C.S., Phillips, R., Fassbender, C., Lesh, T.A., Ragland, J.D., Niendam, T. A. Attention lapses, perception and cognitive control in schizophrenia. (15<sup>th</sup> Annual Meeting of the International Congress on Schizophrenia Research, Colorado Springs, CO, USA 2015).
12. Lesh, T.A., Maddock, R.J., Salo, T., Tanase, C., Ragland, J.D., Niendam, T.A., Solomon, M., Carter, C.S. Diffusion measures of free water and 1h-mrs measures of glutathione in first episode patients with schizophrenia - a multi-modal investigation of an inflammatory model for psychosis. (15<sup>th</sup> Annual Meeting of the International Congress on Schizophrenia Research, Colorado Springs, CO, USA 2015).
13. Lesh, T.A., Mawla, A., Minzenberg, M., Yoon, J., Niendam, T.A., Ragland, J.D., Solomon, M., Carter, C.S. Effects of past mild cannabis use on cognition in first episode schizophrenia: a multimodal analysis of brain structure and function. (15<sup>th</sup> Annual Meeting of the International Congress on Schizophrenia Research, Colorado Springs, CO, USA 2015).
14. Loewy, R., Fisher, M., Carter, C.S., Niendam, T.A., Ragland, J.D., Mathalon, D., Vinogradov, S. Improved cognition and positive symptoms with targeted auditory processing training in recent-onset schizophrenia: 6-month follow-up. (15<sup>th</sup> Annual Meeting of the International Congress on Schizophrenia Research, Colorado Springs, CO, USA 2015).
15. Ragland, J.D., Hannula, D.E., Layher, E., Phillips, J., Carter, C.S., Lesh, T.A., Niendam, T.A., Solomon, M., Ranganath, C. Use of simultaneous eye-movements and fmri to reveal specific relational memory deficits in schizophrenia. (15<sup>th</sup> Annual Meeting of the International Congress on Schizophrenia Research, Colorado Springs, CO, USA 2015).
16. Ray, K.L., Lesh, T.A., Ragland, J.D., MacDonald, A.W., Gold, J.M., Silverstein, S.M., Barch, D.M., Carter, C.S. Functional Network Properties of Cognitive Control in Health and Schizophrenia. (3<sup>rd</sup> Whistler Scientific Workshop on Brain Functional Organization, Connectivity, and Behavior, Whistler, B.C. 2016).
17. Ragland, J.D., White, S., Niendam, T.A., Ferrer, E., Carter, C.S. Relational and Item Specific Memory Markers of Psychosis Risk. (5<sup>th</sup> Biennial Schizophrenia International Research Society Conference, Florence, Italy, 2016).

18. Tully, L.M., Howell, A.M., Lesh, T.A., Ursu, S., Johnson, S., Ragland, J.D., Niendam, T.A., Carter, C.S. Neural Abnormalities During Reward Processing in First Episode Psychosis: Relationship to Symptoms and Functioning. (71<sup>st</sup> Annual Society of Biological Psychiatry Conference, Atlanta, Georgia, USA. 2016).
19. Barch, D.M., Carter, C.S., Gold, J.M., Kring, A., Johnson, S., Luck, S.J., MacDonald, A.W., Ragland, J.D., Silverstein, S.M., Strauss, M. Diagnostically Cross-Cutting Relationships of Cognitive Systems and Positive Valence Constructs with Life Function and Motivation. (71<sup>st</sup> Annual Society of Biological Psychiatry Conference, Atlanta, Georgia, USA. 2016).
20. Lesh, T.A., Maddock, R.J., Tanase, C., Ragland, J.D., Niendam, T., Solomon, M., Carter, C.S. Extracellular Free Water and Prefrontal Glutathione in First Episode Psychosis – A Multi-Modal Investigation of an Inflammatory Model for Psychosis. (71<sup>st</sup> Annual Society of Biological Psychiatry Conference, Atlanta, Georgia, USA. 2016).
21. Roberts, B., Wang, S.F., Montchal, M., Wade, A., Bouffard, N., Ragland, J.D., Carter, C., Ranganath, C. Effects of Transcranial Direct Current Stimulation (tDCS) on Neural Oscillations During Episodic Memory Encoding and Retrieval. (Annual Meeting, Society for Neuroscience, San Diego, CA, USA, 2016).
22. Ragland, J.D., Hsieh, L.T., Lam, J., White, S., Carter, C.S., Lesh, T.A., Niendam, T.A., Ranganath, C. Task Specific Disruptions in Theta Oscillations During Working Memory in People with Schizophrenia. (55<sup>th</sup> Annual American College of Neuropsychopharmacology Conference, Palm Desert, CA, USA, 2017).
23. Caton, M., Ragland, J.D., Maddock, R. Use of a GABA-Optimized MEGA-PRESS Sequence for Glutamate Measurement. (55<sup>th</sup> Annual American College of Neuropsychopharmacology Conference, Palm Desert, CA, USA, 2017).
24. Niendam, T.A., Ragland, J.D., Solomon, M., Ferrer, E. No Evidence for Degeneration of Prefrontal Functioning After First Episode of Schizophrenia. (55<sup>th</sup> Annual American College of Neuropsychopharmacology Conference, Palm Desert, CA, USA, 2017).
25. Savill, M., Skymba, H., Niendam, T., Loewy, R., Lesh, T., Ragland, J.D., Carter, C.S., Goldman, H. Acceptability, Barriers and Facilitators to Screening for Psychosis in Different Mental Health Settings. (16<sup>th</sup> International Congress on Schizophrenia Research, San Diego, CA, USA, 2017).
26. Greenland-White, S., Niendam, T., Ferrer, E., Lesh, T., Solomon, M., Carter, C., Ragland, J.D. Atypical Memory Structure Related to Recollective Ability. (16<sup>th</sup> International Congress on Schizophrenia Research, San Diego, CA, USA, 2017).
27. Lesh, T., Maddock, R., Howell, A., Tanase, C., Ragland, J.D., Niendam, T., Carter, C. Extracellular Free Water and Glutathione in First Episode Psychosis – a Multi-Modal Investigation of an Inflammatory Model for Psychosis. (16<sup>th</sup> International Congress on Schizophrenia Research, San Diego, CA, USA, 2017).

28. MacDonald, A., Patzelt, E., Kurth-Nelson, Z., Barch, D., Carter, C., Gold, J., Ragland, J.D., Silverstein, S. Exploration Not Perseveration: Computational Modeling of Probabilistic Reversal Learning Impairments in Psychosis. (16<sup>th</sup> International Congress on Schizophrenia Research, San Diego, CA, USA, 2017).
29. Niendam, T., Loewy, R., Ragland, J.D., Lesh, T., Skymba, H., Savill, M., Pierce, K., Fedechko, T., Delucchi, K., Goldman, H., Cress, R., Carter, C. A Technology-Enhanced Intervention to Reduce the Duration of Untreated Psychosis Through Rapid Identification & Engagement. (16<sup>th</sup> International Congress on Schizophrenia Research, San Diego, CA, USA, 2017).
30. Hogeveen, J., Ragland, J.D., Lesh, T.A., Niendam, T.A., Carter, C.S., Krug, M.K., Solomon, M. Distinct Brain Regions Associated with Item and Relational Encoding Impairments in ASD. (Annual Meeting of the International Society for Autism Research, San Francisco, CA, USA, 2017).
31. Ray, K.L., MacDonald, A.W., Ragland, J.D., Gold, J.M., Silverstein, S.M., Barch, D.M., Carter, C.S. Dynamic network reorganization of the frontal-parietal, salience, and default mode networks during cognitive control and episodic memory. (Annual Meeting of the Organization of Human Brain Mapping, Vancouver, Canada, 2017).
32. Caton, M., Ragland, J.D. Delusional Ideation in Psychosis Correlates with Decreased Left Prefrontal NAA. (72<sup>nd</sup> Annual Meeting of the Society of Biological Psychiatry, San Diego, CA, USA, 2017).
33. Scangos, K., Roberts, B., Ragland, J.D., Ranganath, C., Carter, C.S. Effects of tDCS on Cognitive Control and Cortical Network Oscillations in Schizophrenia. (72<sup>nd</sup> Annual Meeting of the Society of Biological Psychiatry, San Diego, CA, USA, 2017).
34. Ray, K., MacDonald III, A.W., Ragland, J.D., Gold, J.M., Silverstein, S.M., Barch, D.M., Carter, C.S. Dynamic Network Reorganization of the Frontal-Parietal, Salience, and Default Mode Networks during Cognitive Control and Episodic Memory. (72<sup>nd</sup> Annual Meeting of the Society of Biological Psychiatry, San Diego, CA, USA, 2017).
35. Solomon, M., Krug, M.K., Coleman, C., Elliott, M., Hogeveen, J., Niendam, T.A., Ragland, J.D., Carter, C.S. Functional Connectivity Underlying Cognitive Control Deficits in Adolescents and Young Adults with Autism Spectrum Disorder. (Annual Meeting of the International Society for Autism, 2018, Rotterdam, Netherlands).
36. Solomon, M., Krug, M.K., Coleman, C., Elliott, M., Hogeveen, J., Niendam, T.A., Ragland, J.D., Carter, C.S. Adolescents and Young Adults with Autism Spectrum Disorder Show Differences in Dynamics and Recruitment of Cognitive Control Networks. (Annual Meeting of the International Society for Autism, 2018, Rotterdam, Netherlands).
52. Dager, A.D., Marjanska, M., Mason, G.F., Tice, M.R., Ragland, J.D., Silveri, M.M., Book, G.A., Meagher, C., Assaf, M., Stevens, M.C., Pearlson, G.D. Nonverbal Memory and fMRI Response in Young Adult Marijuana Users. (73<sup>rd</sup> Annual Meeting of the Society of Biological Psychiatry, New York, NY, USA, 2018).

37. Dager, A.D., Marjanska, M., Mason, G.F., Tice, M.R., Ragland, J.D., Silveri, M.M., Book, G.A., Meagher, C., Assaf, M., Stevens, M.C., Pearlson, G.D. Investigation of Neurochemistry and fMRI Response During Nonverbal Memory in Emerging Adult Marijuana Users. (73<sup>rd</sup> Annual Meeting of the Society of Biological Psychiatry, New York, NY, USA, 2018).
38. Ragland, J.D., Hsieh, L.T., Carter, C.S., Hurtado, M., Lam, J., Lesh, T.A., Niendam, T.A., Solomon, M., Ranganath, C. Impact of Schizophrenia on Temporal Context versus Item Memory. (73<sup>rd</sup> Annual Meeting of the Society of Biological Psychiatry, New York, NY, USA, 2018).
39. Lesh, T.A., Tanase, C., Wang, H., Steinbauer, E., Bennet, J., Iosif, A., Van de Water, J., Maddock, R.J., Ragland, J.D., Niendam, T.A., Styner, M., Amaral, D., Bauman, M., Carter, C.S. Diffusion Measures of Extracellular Free Water in First Episode Schizophrenia and a Non-Human Primate Model of Maternal Immune Activation – Exploring Neuroimmune Mechanisms of Psychiatric Disorders. (73<sup>rd</sup> Annual Meeting of the Society of Biological Psychiatry, New York, NY, USA, 2018).
40. Ragland, J.D., Carter, C.S. Mistimed Network Connectivity Associated With Cognitive Control Deficits in Adolescents and Young Adults With ASD (56<sup>th</sup> Annual American College of Neuropsychopharmacology Conference, Hollywood, FL, USA, 2018).
41. Dager, A., Marjanska, M., Mason, G., Tice, M., Ragland, J.D., Silveri, M., Book, G., Meagher, C., Hawkins, K., Assaf, M., Stevens, M., Pearlson, G. Hippocampal Neurochemistry, fMRI Response, and Memory Dysfunction in Emerging Adult Marijuana Users. (56<sup>th</sup> Annual American College of Neuropsychopharmacology Conference, Hollywood, FL, USA, 2018).
42. Liu, X., Hsieh, L., Niendam, T., Lesh, T., Carter, C., Ranganath, C., Ragland, J.D. Disruptions in Alpha and Theta Oscillations are Associated With Working Memory Deficits in People With Schizophrenia. (56<sup>th</sup> Annual American College of Neuropsychopharmacology Conference, Hollywood, FL, USA, 2018).
43. Ragland, J.D. Importance of Encoding and Retrieval Strategy to Prefrontal and Hippocampal Dysfunction in Schizophrenia. (Schizophrenia International Research Society Conference, Orlando, FL, USA, 2019).
44. Smucny, J., Barch, D.M., Gold, J.M., Strauss, M.E., MacDonald, A.W., Boudewyn, M., Ragland, J.D., Silverstein, S.M., Carter, C.S. Cross-diagnostic analysis of cognitive control in mental illness: Insights from the CNTRACS consortium. (Schizophrenia International Research Society Conference, Orlando, FL, USA, 2019).
45. Pratt, D.N., Barch, D.M., Carter, C.S., Gold, J.M., Luck, S.J., Ragland, J.D., Silverstein, S.M., MacDonald III, A.W. Reliability and Replication of Novel Reinforcement Learning and Working Memory Paradigms in CNTRaCS. (Society for Research on Psychopathology, Buffalo, NY, USA, 2019).
46. Liu, X.L., Hsieh, L., Hurtado, M.Y., Niendam, T.A., Lesh, T.A., Carter, C.S., Ranganath, C., Ragland, J.D. Task-specific Disruptions in Theta

Oscillations During Working Memory for Temporal Order in People with Schizophrenia. (Society for Neuroscience, Chicago, IL, USA, 2019).

**Grant Funding (current):**

2R01MH084826 (PI: Carter, CS) 07/01/19-06/30/2025 1 calendar  
 NIMH Annual Direct Costs: \$308,572  
 Cognitive Neurocomputational Task Reliability & Clinical Applications Consortium  
 This multi-site collaborative project will extend the investigators' programmatic efforts in psychiatric assessment using computational approaches to improve phenotypic categorization of a wide range of psychopathologies, based on dataset input from behavioral, cognitive, and neuropsychological domains.

1R01MH105411-01 (PIs: Ragland and Ranganath) 1/01/14-11/30/19 4 calendar  
 NIH/NIMH Annual Direct Costs: \$350,903  
 Neural Mechanisms of Memory Dysfunction in Schizophrenia  
 This grant uses a multimodal functional imaging approach (EEG, fMRI and MRS) to examine the relationship between the function of prefrontal and hippocampal circuitry supporting item-specific and relational memory in the brain to schizophrenia diagnosis, daily function and symptoms in schizophrenia.

1R01MH106518 (PI: Solomon) 1/01/16-12/31/21 1 calendar  
 NIMH Annual Direct Costs: \$410,533  
 Neurodevelopment of cognitive control in autism: adolescence to young adulthood  
 This study examines the adolescent to young adulthood development of cognitive control and its relationship to functional outcomes using fMRI and behavioral measures.

2 R01 MH084826-08A1 (PI: Carter) 9/01/19-6/30/24 1 calendar  
 NIMH Annual Direct Costs: \$456,840  
 Cognitive Neurocomputational Task Reliability & Clinical Applications Consortium (CNTRaCS)  
 This multi-site study will develop and apply next-generation cognitive tasks to characterize cognition in schizophrenia. If successful, the project will develop an integrated computational and experimental approach for assessing cognitive and neural changes transdiagnostically in psychotic and mood disorders.

**Completed Research Support (selected):**

R01MH084895 (PI: Ragland) 3/17/10-2/28/15  
 NIH/NIMH Annual Direct Costs: \$350,903  
 Brain mechanisms of impaired episodic memory in schizophrenia  
 This grant uses a multimodal functional imaging approach to examine the relationship between the function of prefrontal and hippocampal circuitry supporting item-specific and relational memory in the brain to schizophrenia diagnosis, daily function and symptoms in schizophrenia.

R01 MH62103 (PI: Ragland JD) 12/01/01-11/30/05  
 NIMH \$650,000  
 Word Encoding and Recognition in Schizophrenia  
 This R01 provides support for neuropsychological and functional magnetic resonance imaging (fMRI) memory studies of schizophrenia.

R29 MH53326 (PI: Ragland, JD)

5/1/96 – 5/30/01

NIH/NIMH

\$271,105

PET CBF Study of Memory Components In Schizophrenia.

The objective was to develop neuropsychological tests of working and declarative memory suitable of physiologic neuroimaging (PET CBF), and to investigate performance of patients and healthy controls in, and outside of PET to relate to performance and CBF to illness and clinical symptomatology.

Young Investigator Award (PI: Ragland, JD)

12/01/97-11/30/00

EJLB Foundation

\$100,000 CAN

Working and Declarative Memory in Schizophrenia

The objective was to develop measures of item recognition and temporal recency that could be used to assess prefrontal and temporal-limbic function during positron emission tomography in healthy volunteers and patients with schizophrenia.

Independent Investigator Award (PI: Ragland, JD)

09/15/04-09/14/06

NARSAD

\$100,000

Delay in trace conditioning during: fMRI: A probe of Hippocampal Function in Schizophrenia

The purpose of this application is to develop a line of translational neurobehavioral and functional neuroimaging research of delaying trace conditioning. Complementary tasks will be developed to study mice and humans, and preliminary fMRI data will be obtained to provide support for future R01 applications.