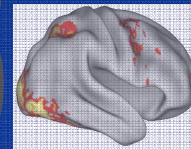
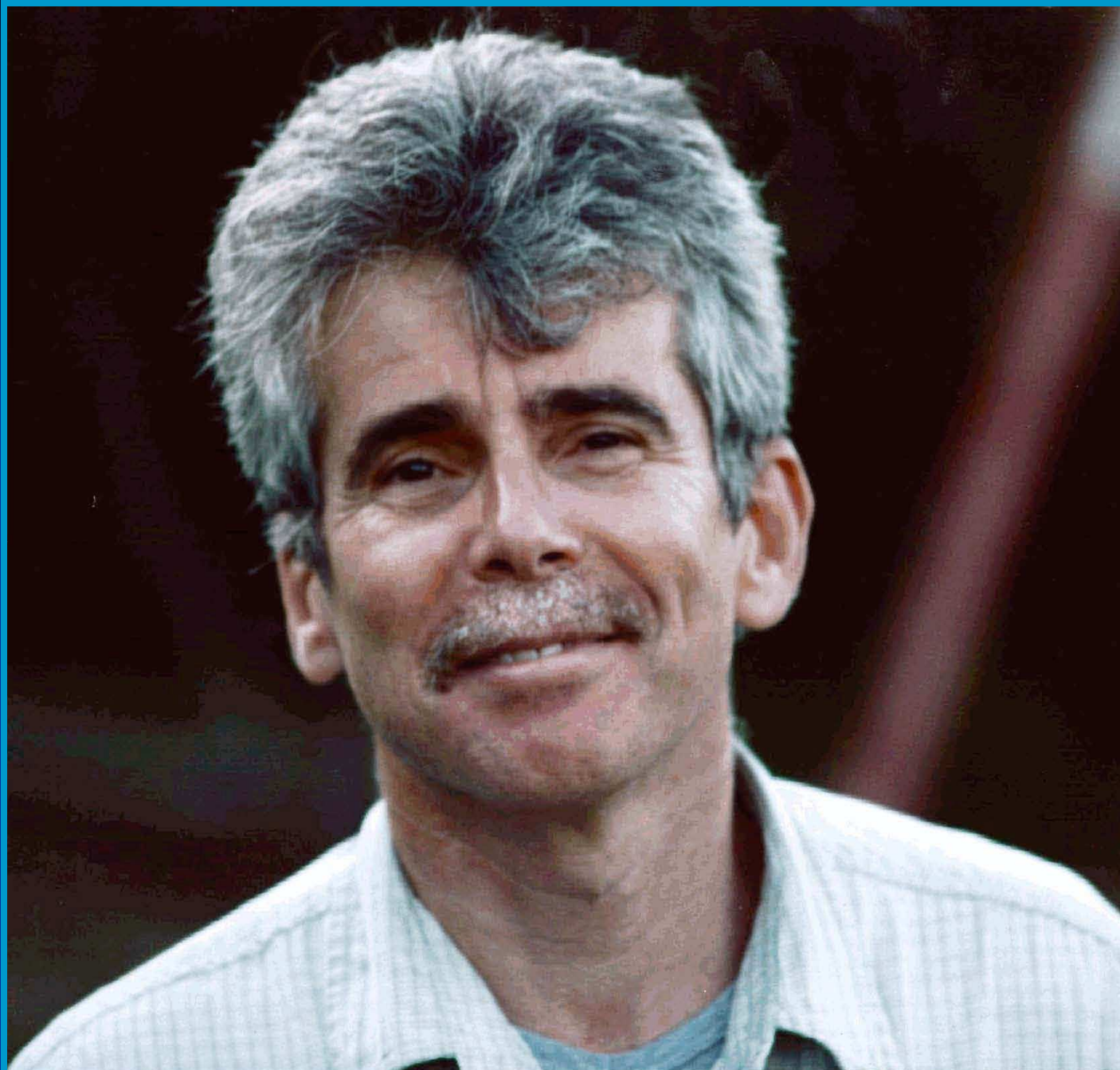


# CNTRICS



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Cognitive Neuroscience Treatment  
Research  
to Improve Cognition in Schizophrenia

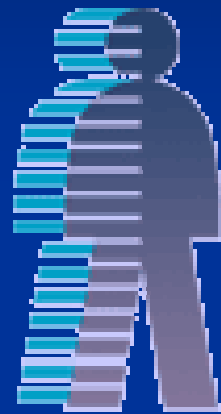


## Project Leaders/Principal Investigators

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Deanna M. Barch, PhD	Washington University

## Steering Committee

Arnsten, Amy	Yale University
Barch, Deanna	Washington University, St. Louis
Buchanan, Robert	University of Maryland
Bullmore, Ed	University of Cambridge
Carter, Cameron	University of California, Davis
Cohen, Jonathan	Princeton University
Geyer, Mark	University of San Diego
Green, Michael	University of California, Los Angeles
Heinssen, Robert	National Institute of Health
Krystal, John	Yale University
Neuchterlein, Keith	University of California, Los Angeles
Robbins, Trevor	University of Cambridge
Silverstein, Steven	University of Medicine and Dentistry of New Jersey
Smith, Edward	Columbia University
Strauss, Milton	Case Western University
Wykes, Til	Kings College of London



# MATRICES

Measurement And Treatment Research  
to Improve Cognition in Schizophrenia

# *Translational Neuroscience*

Clinical trials targeting cognitive and emotional processing deficits

Behavioral and neuroimaging studies of normal and disordered cognitive and emotional processing in humans

*Cognitive Neuroscience*

Behavioral, non invasive and invasive studies of normal and disordered cognitive and emotional processing in animal models

Basic molecular, cellular and systems neuroscience and neuropharmacology



# ***Tools and Constructs of Cognitive Neuroscience: The Opportunities***

- Measure specific deficits in discrete cognitive systems and component processes
- Linked to identifiable neural systems
- Functionally regulated by identifiable neuromodulatory systems
- Distinguish between specific deficits versus generalized deficits such as sedation, dysphoria, poor test taking skills, etc.
- Bridge human and animal models of cognition, facilitate translational research

# *Tools and Constructs of Cognitive Neuroscience: The Challenges*

- No general consensus regarding constructs from cognitive psychology that should be measured
- Uncertain psychometric properties and practicalities of administration
- No generally agreed upon tasks for measuring specific mechanisms

# *The CNTRICS Process: Surveys and Meetings*

- Meeting 1, Bethesda 2/26-7: Constructs
- Meeting 2, St. Louis 9/28: Measurement issues (psychometrics, task optimization)
- Meeting 3, Sacramento 2 2008: Task selection and development



# *Tools and Constructs of Cognitive Neuroscience: Meeting 1, Constructs*

- Consensus constructs/component processes to be measured in studies targeting impaired cognition in schizophrenia

# *Meeting 1: Constructs*

- 6 broad cognitive and affective systems relevant for impairments seen in schizophrenia (steering committee/survey) will be examined
- Within these cognitive systems initial constructs and/or component processes generated and refined by survey will be considered
- Task is to identify the most promising cognitive mechanisms to be targeted for measurement of treatment effects in schizophrenia

# *Talks*

- Experts in basic cognitive neuroscience
- Focus on basic cognitive constructs and component processes, empirical evidence
- Relevance for schizophrenia
- Touch on the 8 criteria
- Provide a strong basic cognitive science perspective to help focus the breakout groups

# *Breakout Groups*

- Structured, consensus building discussion
- Use formal criteria (survey) to guide discussion
- Identify 1 or 2 most promising constructs for measurement in treatment studies of impaired cognition in schizophrenia
- Identify others for which more work, either at the basic or clinical level, is needed
- Identify constructs that are not likely to be relevant as targets for measurement in treatment studies of cognition in schizophrenia

# Products of Meeting 1

- A set of priority constructs for task development in meeting 3
- Papers summarizing talks and breakout groups for publication