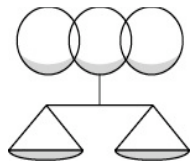


GRUTER INSTITUTE FOR
LAW AND BEHAVIORAL RESEARCH
&
THE FEDERAL JUDICIAL CENTER



**Seminar on
Neuroscience & Criminal Behavior**

Philadelphia, Pennsylvania

July 12-13, 2010

Funding for this program provided by

MACARTHUR
The John D. and Catherine T. MacArthur Foundation
Law and Neuroscience Project

Faculty and Organizers

Geoffrey Karl Aguirre, M.D. Ph.D. - Assistant Professor of Neurology, Hospital of the University of Pennsylvania

Rita Z. Goldstein, Ph.D.- Scientist, Brookhaven National Laboratory Medical Research Department & Affiliate, Depts. of Psychology and Biomedical Engineering, SUNY at Stony Brook

Oliver R. Goodenough, J.D. - Professor of Law, Vermont Law School; Faculty Fellow, Berkman Center for Internet & Society, Harvard Law School

Chris Hansen, Ed.D. – Chief U.S. Probation Officer, District of Nevada

Kent Kiehl, Ph.D. –Associate Professor, Department of Psychology, University of New Mexico; The Mind Research Network

J. Steven Lamberti, M.D. – Professor of Psychiatry, University of Rochester School of Medicine

Stephen J. Morse, J.D., Ph.D. - Ferdinand Wakeman Hubbell Professor of Law, University of Pennsylvania Law School; Professor of Psychology and Law in Psychiatry, University of Pennsylvania School of Medicine

Adina Roskies, Ph.D. – Associate Professor of Philosophy, Dartmouth College

Elaine Terenzi, M.S., M.B.A. – Chief U.S. Probation Officer, Middle District of Florida

Monika Gruter Cheney, J.D. - Executive Director, Gruter Institute for Law & Behavioral Research

Susie Merchant, M.A. – Education Specialist, Federal Judicial Center

Mark A. Sherman, J.D., LL.M. - Senior Education Attorney, Federal Judicial Center

**Neuroscience & Criminal Behavior
for
Chief U.S. Probation and Pretrial Services Officers
and Substance Abuse/Mental Health Specialists**

Monday, July 12, 2010

1:00-1:15pm **Welcome & Introductory Remarks**

Mark Sherman
Senior Education Attorney
Federal Judicial Center

Monika Gruter Cheney
Executive Director
Gruter Institute for Law and Behavioral Research

1:15-1:35pm **Overview: Neuroscience & Criminal Behavior: What We Know and Don't Know**

Stephen Morse
Ferdinand Wakeman Hubbell Professor of Law
Professor of Psychology and Law in Psychiatry
University of Pennsylvania Law School

Topics: The importance of focusing on the practical relevance of neuroscience information; Understanding how to assess the confidence that one may place in neuroscience research; How much genuine causal information we have at present; The problem of brain overclaim and the "No Lie MRI" problem; the cases of Phineas Gage, "John Doe," and "William Baday"; Questions to consider over the course of the seminar: Can neuroscience help identify likely candidates for substance abuse and mental health treatment, etc.? Does it say anything about the use of sanctions and rewards in the criminal justice context generally? How can neuroscience help in investigation and supervision of defendants and offenders?

1:35-2:35 **Introduction to the Neuroanatomy of the Brain and Its Relationship to Behavior**

Topics: Neuroanatomy, brain chemistry, plasticity, and development; reward centers; techniques of brain measurement; overview of impact of

addiction, trauma, and underdevelopment on brain function; challenges presented by Phineas Gage, “John Doe,” and “William Baday”

Presenters:

Adina Roskies
Associate Professor of Philosophy
Dartmouth College

Oliver Goodenough
Professor of Law
Vermont Law School

Facilitator:

Chris Hansen
Chief U.S. Probation Officer
District of Nevada

2:35 – 3:30pm

Pluses and Minuses of Brain Scanning and What is Good Science versus Bad?

Neuroimaging has revolutionized the field of cognitive neuroscience over the last 20 years. More recently, it has been applied outside of the basic science laboratory to questions in business, politics, and law. In this session we will explore the basis of neuroimaging and the limits of the technology to explain or predict behavior. In many cases the claims made on behalf of the method have exceeded what it can reasonably deliver. By the end of the session you will have the intellectual tools needed to critically evaluate neuroimaging claims on your own.

Presenters:

Geoffrey Aguirre
Assistant Professor of Neurology
Hospital of the University of Pennsylvania

Stephen Morse

Facilitator:

Chris Hansen

3:30- 3:45pm

Break

3:45 -5:15pm

Neuroimaging, Neuropsychology of Drug Addiction, and Implications for Assessment and Treatment

Topics: Differentiating addiction, abuse, and dependence; neuroscience of addiction; addiction as brain injury; normalizing cognitive functioning to enable treatment; role of attentional bias; use of non-drug rewards and contingency management; how to evaluate treatment quality; John Doe's drug problem, assessment/screening, and treatment needs.

Presenter:

Rita Goldstein

Scientist, Brookhaven National Laboratory Medical Research Department
& Affiliate Departments of Psychology and Biomedical Engineering
State University of New York at Stony Brook

Facilitator:

Elaine Terenzi

Chief U.S. Probation Officer
Middle District of Florida

5:00pm

Adjournment

Tuesday, July 13, 2010

7:00-8:00am

Continental Breakfast

8:00-9:15am

Anti-Social Personality Disorder & Psychopathy: Risk Assessment, Treatment, and Neuroscience

Topics: Anti-social personality disorder among offenders; psychopathy as subset of ASPD; effects of prison environment on inmates; neuroscientific information to include in presentence report; risk/needs assessment upon reentry and individualized treatment. William Bada'y's ASPD problem, assessment, and treatment needs.

Presenter:

Kent Kiehl
Associate Professor of Psychology
University of New Mexico
The Mind Research Network
Albuquerque, NM

Facilitator:

Elaine Terenzi

9:15-10:30am

Mental Illness and the Limits of Current Neuroscientific Knowledge

Topics: Topics: Neurobiology of serious mental illnesses, such as schizophrenia and bipolar disorder, and how diagnosis is based on clinical observation rather than laboratory testing or neuroimaging studies. Limits of neuroscientific knowledge on these topics; unreliability of neuroimaging or any other kind of biological test for diagnostic purposes at the present and for the foreseeable future.

Presenters:

J. Steven Lamberti
Professor of Psychiatry
University of Rochester School of Medicine

Geoffrey Aguirre

Facilitator:

Susie Merchant
Education Specialist
Federal Judicial Center

10:30-10:45am **Break**

10:45-12:00 noon **Dialogue: Using Neuroscience in Investigation and Supervision**

Topics: Reviewing and applying what we've learned to "John Doe" and "William Baday" cases and to the daily work of officers who investigate and supervise these types of defendants/offenders; address remaining questions.

Panelists:

Stephen Morse
Oliver Goodenough
Elaine Terenzi
Chris Hansen

Facilitators:

Mark Sherman
Susie Merchant

12:00 noon **Adjournment**