

# THE CENTER FOR LAW, BRAIN & BEHAVIOR



HARVARD MEDICAL SCHOOL  
TEACHING HOSPITAL



MASSACHUSETTS  
GENERAL HOSPITAL

## ABOUT CLBB

The Center for Law, Brain & Behavior puts the most accurate and actionable neuroscience in the hands of judges, lawyers, legal staff, policymakers and journalists—people who shape the standards and practices of our legal system and affect its impact on people’s lives. We work to make the legal system more effective and more just for all those affected by the law.

Though the brain and the law are both complex, our work is quite simple. We provide expert training, tools and counsel, helping members of the legal community understand and apply the most relevant brain science to the cases, courtroom procedures and policies they influence. By making applied neuroscience more accessible, we are making the legal system more just.

**A national consensus has emerged: the time for major criminal justice reform is long overdue.** Yet, in order to achieve systemic change, pressure from outside the legal system must be complemented by experts operating effectively within the legal system. That is where CLBB steps in.

CLBB uses neuroscience to support meaningful practice changes among a wide range of actors in the legal ecosystem: judges, lawyers, legal staff, standard-setting authorities, case workers, pretrial administrators, parole and enforcement agents, and financial planners working with elderly clients and their families. We also help members of the media accurately inform policymakers and the public about the brain, human behavior and the justice system.

The Center is led by practicing lawyers, judges, psychiatrists, neurologists and researchers on the front lines of clinical and legal innovation — accomplished thought leaders who have spent their careers in courtrooms, hospitals and jails, and who understand the current injustices of the legal system firsthand. The Center is based at the Department of Psychiatry at Massachusetts General Hospital, and at Harvard Medical School, Harvard Law School and other leading institutions.

CLBB works with partners as diverse as the Federal Judicial Center, the Securities and Exchange Commission, the National District Attorneys Association, the American Bar Association, and the Flaschner Judicial Institute.

Since our founding in 2008, we have demonstrated the clear benefits of accurately applied neuroscience: **better decisions aligned with science lead to better outcomes aligned with justice.**

# CLBB

THE CENTER FOR LAW,  
BRAIN & BEHAVIOR

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## FOCUS AREAS

### 1. Establishing more effective standards and practices for **criminal sentencing** by helping judges and lawyers understand the most relevant applications of the neuroscience of decision-making.

We support systemic improvements in pretrial and presentence evaluations, and we help judges integrate science-informed understandings of behavior in determining sentences, including the neuroscience of trauma, impaired judgment, addiction and withdrawal, brain injury, genetic vulnerabilities, toxic stress, environmental triggers, developmental trajectories and mental disorders. In service of these improvements, we also educate a range of legal actors on how to use neuroscience to understand and respond to systemic issues that impact the treatment of justice-involved individuals, including false confession, lie detection and implicit bias.

Additionally, we take a uniquely hands-on approach to helping stakeholders across the legal system adopt new models of science-informed collaboration. We convene federal and magistrate judges, pretrial service officers, presentence officers, probation officers and clinical experts to work together to assess the risks and needs of a wide range of justice-involved individuals, and develop appropriate action plans for their cases.

### 2. Ensuring more accurate evaluations and more effective solutions for **juvenile and emerging adult justice** by helping judges, lawyers and other key actors across the legal ecosystem understand the most relevant applications of the neuroscience of developing brains.

In addition to supporting the integration of positive youth development principles across the justice system, we provide actionable recommendations related to the interaction between brain and environment, the susceptibility to coerced confession, the maturation of brain circuits through an individual's early 20s, the impact of adverse childhood experiences (ACEs), the development of risk perception and sensation seeking, the impact of peer influence, the age-crime curve and developmental trajectories, the onset of mental health disorders, and the pervasive impact of implicit bias on sentencing and treatment throughout the justice system.

### 3. Ensuring more accurate judgments in **immigration and asylum** cases, and changing legal standards through impact litigation, by helping lawyers and judges understand the most relevant applications of the neuroscience of trauma, family separation and memory.

We provide individual lawyers, legal clinics, policy advocates and pro bono programs at law firms with actionable neuroscience that enables them to: represent asylum seekers whose credibility may be attacked based on faulty scientific understandings of memory; more effectively

communicate the severity of the neurobiological effects of mental trauma; and better identify and respond to the needs of people experiencing brain injury and neurological impairments, especially in asylum and removal proceedings. We conduct regular trainings, and provide consulting services for both individual cases and impact litigation.

#### **4. Ensuring better **protection and agency for older adults**, especially in the process of estate planning and financial decision-making, by helping judges, lawyers, families and financial planners understand the most relevant applications of the neuroscience of aging brains.**

As the science of aging brains improves year by year, we introduce judges to cutting-edge advances in the diagnosis, detection and response to neurodegenerative disorders such as Alzheimer's disease and the often undiagnosed and misunderstood condition of frontotemporal dementia. By partnering with professional legal societies specializing in elder issues, we also advise practicing lawyers on how to apply new developments in the neuroscience of dementia to sharpen their legal arguments and to improve their understanding of how to work with clients experiencing age-related cognitive impairments (e.g., forensic interviewing techniques, competency and decision-making assessments).

## **CURRENT INITIATIVES**

### **Amicus Briefs.**

Integrating neuroscience into high-impact amicus briefs related to criminal justice, including an amicus brief challenging the harsh punishment of juveniles submitted to the U.S. Supreme Court, and an amicus brief cited by the Massachusetts Supreme Judicial Court that led to improved rules for governing the use of eyewitness memory in courtrooms.

### **Actionable Tools.**

Conducting applied research and developing legally actionable evidence, such as expert affidavits, testimony and reports that can be used in legal briefs and arguments.

- For lawyers and judges working with emerging adults, we provide neuroscientific evidence that supports constitutional challenges, as well as arguments for individual sentencing decisions, rooted in the recognition of how significant brain development continues through an individual's early 20s.
- For lawyers and judges working across the juvenile system, we provide neuroscientific evidence that supports impact litigation (including at the U.S. Supreme Court), as well as arguments for individual sentencing decisions, rooted in the neuroscience of brain development and adolescent decision-making.
- For lawyers working in asylum and immigration law, we provide neuroscientific evidence that supports impact litigation, as well as arguments for individual cases, rooted in the relationships among trauma, stress and memory.

## Trainings.

Designing and leading training programs for the judges, lawyers and policymakers who shape the system:

- Aligning criminal justice practice with contemporary neuroscience research on the developing brain, in a unique partnership with prosecutors, public defenders and a youth empowerment organization in Boston.
- Facilitating practice changes across the federal court system through our 3-day intensive workshop for the Federal Judicial Center, *Science-Informed Decision Making*. The FJC is the research and education agency of the judicial branch of the U.S. government, chaired by the U.S. Chief Justice. The training has served federal judges and probation and pretrial officers in more than 40 federal districts, focusing on improving responses to justice-involved individuals with mental health and substance use disorders, from initial appearance to sentencing.
- Educating prosecutors, defense attorneys and judges on critical updates in the field of law and neuroscience. Since 2008, CLBB principals have introduced key concepts and insights related to the application of neuroscience to more than 3,000 judges and lawyers at the local, state, national and international levels.
- Educating professionals in law and wealth management on the neuroscience of aging brains and its implications for protecting against elder financial fraud. Since 2018, CLBB principals have led the neurolaw session for Harvard Medical School's annual course for healthcare professionals, *Dementia: A Comprehensive Update*. Each year, CLBB also designs and hosts custom programs for judges, doctors, lawyers, researchers and caregivers, such as *Our Aging Brains: Decision-making, Fraud and Undue Influence*.

## Standard-Setting Authorities.

CLBB principals sit on boards that set guidelines and provide critical context for judicial decision-making, such as the Massachusetts Forensic Science Oversight Board, the Massachusetts Supreme Judicial Court Standards on Substance Abuse Advisory Board, the Massachusetts Mental Health Legal Advisors Committee, and the Presidential Commission on the Supreme Court of the United States.

## RECENT EVENTS AT HARVARD LAW SCHOOL

- » [Policing and the Brain: How Neuroscience Can Contribute to Police Reform](#)
- » [Detecting Dementia: Technology, Aging Brains and the Law](#)
- » [The Next Frontier of Neuroscience and Juvenile Justice](#)
- » [Computational Justice: How Artificial Intelligence and Digital Phenotyping Can Advance Social Good](#)
- » [The Neuroscience of Hate](#)
- » [Trauma at the Border](#)

These events are part of the [Project on Law and Applied Neuroscience](#), a collaboration between the Center for Law, Brain & Behavior and the Petrie-Flom Center for Health Law Policy, Biotechnology, and Bioethics at Harvard Law School.

## CLBB LEADERSHIP

The Center for Law, Brain & Behavior is led by:

- **Dr. Judith Edersheim, JD, MD** – Forensic Psychiatrist, Co-founder and Co-director
- **Dr. Bruce Price, MD** – Neurologist, Co-founder and Co-director
- **Dr. Francis Shen, JD, PhD** – Law Professor, Executive Director
- **Judge (Ret.) Nancy Gertner, JD, MA** – Law Professor and Defense Attorney, Managing Director
- **Dr. Robert Kinscherff, JD, PhD** – Clinical Psychologist, Associate Managing Director
- **Dr. Lisa Feldman Barrett, PhD** – Neuroscientist, Chief Scientific Officer

The work of CLBB is assisted by an interdisciplinary team of staff and student research assistants, as well as an active Advisory Board of 33 members with backgrounds in medicine, science, law, business, technology, public health, the arts and community organizing. In addition, the Center collaborates with a roster of Affiliated Faculty with expertise in neuroscience, medicine, law and ethics; external project consultants with expertise in applied neuroscience; and a range of practicing attorneys, law school clinics and professional associations.

Every year, CLBB leadership and affiliated partners help grow the neurolaw field by teaching, mentoring and providing training opportunities for undergraduates, law students, medical students, residents and post-doc fellows. The Center recently received more than 150 applications for four summer student intern positions.

Executive Director, Dr. Francis Shen, co-authored the first ever neurolaw textbook, *Law and Neuroscience*, which has encouraged the rapid growth of neurolaw course offerings—more than 25 law schools have now offered courses, including those at Harvard, Yale, Columbia, Stanford, Vanderbilt and the University of Pennsylvania.

Further information about CLBB Principals, Affiliated Faculty and Advisory Board members can be found on the [CLBB website](#).

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