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# CLBB News A newsletter from the Center for Law, Brain & Behavior

September 1, 2022

### **CLBB Highlights**



## Michigan Supreme Court Opinions Issued Bars Mandatory Life Without Parole For Persons Committing Offenses at Age 18

The Michigan Supreme Court issued groundbreaking opinions based on scholarly contributions concluding that mandatory LWOP for 18-year-olds violates the Michigan Consitution. For *People v. Poole* and *People v. Parks*, **CLBB Executive Director Dr. Robert Kinscherff** reviewed the drafts and signed the amicus briefs filed titled *Amicus Brief by Neuroscientists, Psychologists, and Criminal Justice Scholars*.



### Can Democrats Expand the Supreme Court and How Likely Is it?

Newsweek | June 29, 2022

CLBB Managing Director Nancy Gertner discusses whether adding more justices to the Supreme Court is possible, how likely it is to succeed, and why some Democrats are asking for it to happen, while others oppose it. Gertner calls for an expansion of the court but thinks that the current set-up of the Supreme Court is bound to stay. The court is ruling to enable Republican legislatures to constrict the vote across the country and for the size of the Supreme Court to be changed, the legislation would have to be approved by both the House and Senate. Since Democrats are not united in expanding the court and there is a technical hurdle in the Senate of needing 60 votes compared to 51 votes, therefore the "chances of that happening in this session are not high."

Highlight: "The expansion wouldn't guarantee a Liberal court, the expansion would guarantee other voices on the court —whoever is confirmed, whoever is supposed to have to be confirmed. But it will at least mean that the makeup of the court will change."

## Racial Disparities in Mental Health Care: An Explainer and Research Roundup

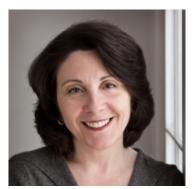
The Journalist's Resource | May 18, 2022

This article discusses how persisting structural racism is one of the key drivers of mental health disparities. **CLBB Director of Law & Ethics Dr. Rebecca Brendel** comments on how being the target of racist behavior is linked to negative health outcomes. To address



the chronic shortage of providers of color in the United States, she says we must attract a broader range of students to train more diverse psychiatrists and physicians.

Highlight: "You have more stress, leading one to suffer negative mental health effects and it is harder to actually seek that help."



Range of Emotion
Whyy PBS | June 3, 2022

In an episode of WHYY PBS podcast titled "Range of Emotion," CLBB Scientific Officer Dr. Lisa Feldman Barrettjoins other researchers in discussing what we are learning about emotions, what makes studying emotions so difficult, new theories of where they come from, and the future of emotion-sensing Al. Dr. Feldman Barrett talks about her "Theory of Constructed Emotion" to describe how emotions originate and challenges the thought that emotions are universal and hardwired into our brains with her "theory of constructed emotion."

Highlight: "There really is no objective way to measure emotion in anybody ever...every measure of emotion that was purported to be unique to a particular emotion category turned out not at all to be unique...[Emotions] are constructed by your brain very automatically...Your brain is categorizing making sense of sensory signals like changes in heart rate and...it's creating this pattern and making meaning of it to create the emotion...Your brain is basically using your past experience to create concepts for emotion on the fly. It's basically asking not what are these signals but what are these signals similar to...It's a very powerful thing to understand that you are the architect of your experience."

### **Advisory Board Member News**



Mayor Adams Invests Billions in City's Youth, Releases
Blueprint for Child Care & Early Childhood Education in New
York City

The Official Website of the City of New York | June 28, 2022

New York City Mayor Eric Adams released "Accessible, Equitable, High-quality Affordable: A Blueprint for Child Care & Early Childhood Education in New York City" which outlines essential steps to provide high-quality, accessible, and equitable child care for NYC families. The blueprint aims to support working families and allow parents to get back to work which will also add to the economic pulse of the city. **Attorney Jennifer Jones Austin,** CEO and Executive Director of Federation of Protestant Welfare Agencies, on the profound impact this step in providing high-quality and accessible child care will have in equity for all New Yorkers.

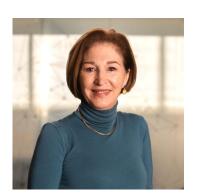
Highlight: "When high quality, accessible, and affordable childcare and early childhood education are available to all children, the results can be profound. Children can develop the educational and social-emotional foundation they need to succeed in school and in life, and their families are strengthened, too. It's an essential step we must take if, as a city, we aspire to greater equity for all New Yorkers."

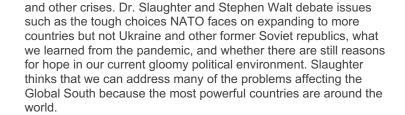
What the West is Doing Wrong in the World's Biggest Crises Gzero | June 12, 2022

**Dr. Anne-Marie Slaughter**, CEO of New America, was part of a conversation hosted by GZERO World about the war in Ukraine









Highlight: "If you're going to use a crisis effectively for change, you have to be able to have the right time horizon, the right group of countries, and a very specific set of goals."

### **Securing Our Schools**

World News Group | June 30, 2022

Paul Butler, Professor in Law at Georgetown University Law Center, hosts WORLD Radio and discusses schools assessing safety measures beyond metal detectors and action plans.

Highlight: "On local campuses across the nation, security administrators have once again had to make a sobering assessment of their own security protocols—always with the question, will it work?"

### Tech Needs Rules to Operate on a Global Stage, Eric Schmidt Says

Protocol | June 28, 2022

Dr. Anne-Marie Slaughter, CEO of New America, joined Eric Schmidt and Darío Gil in discussing tech's role on a global stage at a panel moderated by Garrett Graff. They said that the war in Ukraine, the COVID-19 pandemic, and other worldwide issues have tested tech's role ability to expand on a global scale. Slaughter said that the implications of tech companies cutting ties with Russia are "enormous." Tech companies are starting to act as "independent foreign policy actors" in their decisions on global issues.

Highlight: "Suddenly, you're seeing corporate and civic actors playing a role alongside government."

### **Faculty News**



Structural Integrity of the Anterior Mid-Cingulate Cortex Contributes to Resilience to Delirium in SuperAging Oxford Academic Brain Communications | June 28, 2022

**CLBB Chief Scientific Officer and Faculty Dr. Lisa Feldman** Barrett along with other researchers investigated patients undergoing elective surgery recruited as part of the Successful Aging after Elective Surgery Study. They examined the role of preoperative memory function in the incidence and severity of postoperative delirium. They also looked at the association between indices of postoperative delirium symptoms and cortical thickness in functional networks implicated in SuperAging based on structural magnetic resonance imaging data. They found that SuperAging confers the real-world benefit of resilience to delirium and that greater baseline cortical thickness of the anterior mid-cingulate cortex predicted lower postoperative delirium severity scores in all patients. These results suggest that baseline memory function in older adults may be a useful predictor of postoperative delirium risk and severity and that superior memory function may contribute to resilience to delirium. The integrity of the anterior mid-cingulate cortex may be a potential biomarker of resilience to delirium.

The Origins of Cognitive Flexibility in Chimpanzees Developmental Science | April 9, 2022



CLBB Faculty Dr. Joshua W. Buckholtz and others examined the nature and origins of cognitive flexibility in chimpanzees using reversal learning tasks. They found that chimpanzees did not reach mature performance for basic shifting and shifting response to probabilistic feedback until late in development. They also found that chimpanzees were much more successful when using spatial versus perceptual cues and were highly preservative when faced with probabilistic versus consistent outcomes. This shows the core features of chimpanzee cognitive flexibility that are shared with humans and the constrain which may represent evolutionary changes in human cognitive development.



Congratulations to the 2022 Claflin Distinguished Scholars
Mass General Research Institute | July 21, 2022

In 1993, the Women in Academic Medicine Committee was formed to facilitate the academic careers of women in science at Massachusetts General Hospital. They established the Claflin Distinguished Scholar Awards to recognize that maintaining research productivity during child-rearing years is a significant obstacle to career advancement for women. This year, CLBB Faculty Dr. Altaf Saadi was one of eight newly named Claflin Distinguished Scholars. Dr. Saadi's research focuses on neurological health disparities and social and structural determinants of health among racial/ethnic minorities, immigrants, and refugees. She is committed to action-oriented, community-engaged, and policy-relevant research that will improve health outcomes for marginalized populations.

Highlight: "I am so grateful for the Claflin Award, which is a huge boost for me as a clinician-investigator and soon-to-be mother of two! I'm especially inspired by all the remarkable award winners that have come before me who stand out as formidable researchers and mothers whose successes I want to emulate in my own career."



<u>Graded Variation In T1w/T2w Ratio During Adolescence:</u>
<u>Measurement, Caveats, and Implications for Development of Cortical Myelin</u>

The Journal of Neuroscience | June 15, 2022

CLBB Faculty Dr. Randy Buckner and other researchers use T1w/T2w mapping methods and data from the Human Connectome Project in Development and characteristic microstructural changes relevant to myelination by estimating age-related differences in T1w/T2w throughout the cerebral neocortex. Their results are new evidence demonstrating graded variation across the cortex in the timing of T1w/T2w changes during adolescence with rapid T1w/T2w increases in lower-order sensory areas and gradual T1w/T2w increases in higher-order association areas. This may reflect cortical myelination changes during adolescence underlying the development of complex information processing and psychological functioning.



A Historic Moment To Improve Coloradans' Mental Health CBS Colorado | May 19, 2022

CLBB Faculty Dr. Morgan Medlock was part of CBS News Colorado Community Conversation with other mental health experts and discussed communities in crisis, a severe shortage of workers, and the massive investments underway to reform a system of care that has failed too many Coloradans. Dr. Medlock stressed that mental health care needs to be accessible and called for establishing a "front door" to care.

Highlight: "When we think about an expanded front door, we have done a lot this legislative session to ensure that when the people of Colorado need help and need help in an urgent way that they're able to get the care they need."

The Role of Episodic Simulation in Motivating Commonplace



<u>Harms</u> Cognition | August 2022

CLBB Faculty Dr. Fiery Cushman and other researchers showed that imagining performing actions that adversely affect others makes people report a higher likelihood of performing those actions in the future. When people construe their actions as morally justified, imagining doing them makes them feel good. These findings contrast traditional accounts of harm aversion in moral psychology and contribute to a growing body of evidence that people often cast harming others in a positive light.



Peer-to-Peer Trauma-Informed Training for Surgical Residents
Facilitated by Psychiatry Residents
Academic Psychiatry | May 17, 2022

In this brief report, **CLBB Faculty Dr. Alisha Moreland-Capuia** and other researchers describe the implementation of traumainformed care (TIC) didactic training using a peer-to-peer teaching model to improve trauma-informed practices in a surgical residency program. They found that surgical interns reported significantly improved understanding of the physiology of trauma, knowledge of TIC approaches, and confidence and comfort with TIC and practices. Therefore TIC curriculum via peer-to-peer training model is an effective way to improve comfort and confidence surrounding TIC practices and approaches in a surgical residency training program.



# Evidence for Spinozan "Unbelieving" in the Inferior Prefrontal Cortex

PsyArXiv | June 22, 2022

**CLBB Faculty Dr. Joshua Greene** and other researchers used fMRI and a novel "shell game" task to test competing theories (Cartesian and Spinozan Theory) about the nature of belief and its neural basis. They found that consistent with the Spinozan theory, thinking about a proposition without believing it is associated with increased activation of the right inferior frontal gyrus. This finding is consistent with the Spinozan Theory where unbelieving is an inhibitory control process.



Emotions - They're Not Just For Humans NPR | May 4, 2022

**CLBB Faculty Dr. Kerry Ressler** appeared on NPR's podcast episode discussing emotions and how they seem to have evolved from brain circuits that you can find in animals. Dr. Ressler mentions that traumatic experiences change brains, which can be seen in mice. When mice learn to associate a tone with an electric shock, they freeze. But when the tone is no longer associated with the shock, the mice figure out they are safe and stop freezing. Dr. Ressler says trauma changed the whole learning curve.

Highlight: "If the animals had prior trauma, they'll learn that more quickly, they'll freeze for longer, and it takes them longer to extinguish or learn that now that tone is actually safe."



Geographic Region, Racial/Ethnic Disparities, and Late-Life Depression: Results From a Large US Cohort of Older Adults The American Journal of Geriatric Psychiatry | June 2022

In this paper, **CLBB Faculty Dr. Olivia Okereke** and colleague researchers found that late-life depression (LLD) varied by geographic region, suggesting that geographic region may play an important role in patterns of racial and ethnic disparities in LLD outcomes. They observed significant regional differences in late-life depression severity and item-level symptom burden, but not in treatment. There were lower levels of LLD severity and item-level symptom burden in the Midwest compared to the Northeast. Magnitudes of racial and ethnic disparities in LLD severity and item-

level symptom burden differed by region.



The American Journal of Psychiatry | June 22, 2022

CLBB Faculty Dr. Jordan Smoller and other researchers conducted the largest prospective longitudinal biomarker study of persistent dissociation. Dissociation is the disruption of psychological functioning. The incidence of dissociation after trauma is inconsistent. This study aimed to determine the predictive capacity of persistent dissociation for adverse psychiatric outcomes following acute trauma. Their findings suggest that persistent derealization is an early psychological and biological marker of worse later psychiatric outcomes subsequently.



Association of Adversity with Psychopathology in Early Childhood: Dimensional and Cumulative Approaches
Depress Anxiety | May 20, 2022

CLBB Faculty Dr. Margaret Sheridan and other researchers examined whether specific types of adversity are differentially associated with psychopathology in preschool-aged children. They found that threat was strongly related to behavioral disorders while the cumulative risk was consistently related to all psychopathologies. This selectivity may reflect different pathways in which adversity increases the risk for psychopathology during this developmentally important period.



A Supreme Court Ruling Expands Gun Rights
Axios Today | June 24, 2022

**CLBB Faculty Jeffrey Rosen** appeared on Axios Today's podcast discussing the Supreme Court ruling that struck down a more than a century-old New York state gun law. The court stated that this law, which limits who can carry guns outside the home, conflicts with the Second Amendment – and the ruling stands to significantly change the legal landscape of gun rights in the U.S.

Highlight: "According to the Supreme Court, the New York law is an outlier inconsistent with the history and tradition of gun regulations. Basically, the court said that only six states have a system like New York, where you have to show a good reason for carrying a gun... The court has signaled a real willingness, to take a hard look at gun regulations that many folks have thought were constitutionally unproblematic...I think it's not too much to say that this changes the legal landscape. It was not obvious that there was a majority on the court to adopt such a robust vision of the second amendment and now all sorts of regulations, both those that are currently on the books and ones that might be adopted in the future are open to constitutional challenge."

### **Future Events**

International Neuroethics Society 2022 Meeting Montreal, Canada + Virtual | November 2-4, 2022

The 2022 INS Annual Meeting will be a hybrid event including opportunities to participate online as well as inperson at the Institut de recherches cliniques de Montréal (IRCM) in Montreal, Canada.



The theme is: Bringing Neuroethics to Life Throughout Patient Care, Research, and Policy. A number of program sessions will be organized on this topic to tackle topics related to: prevention; diagnosis; emerging therapies, technologies, and research; and neurorecovery and end of life.

Highlight: Call for Abstracts - We are seeking poster presentations, short talks, and long talks.

### In the News

#### General

#### How 'The Dress' Sparked a Neuroscience Breakthrough

Wired | June 24, 2022

#### **Children's Chores Improve Brain Function**

Neuroscience News | June 14, 2022

### Research Sheds Light on Mechanism by Which Long-Term Anti-Anxiety Drug Use Affects the Brain

Neuroscience News | June 29, 2022

#### **Blood Vessel Breakthrough Major Step Towards Alzheimer's Treatment**

Neuroscience News | June 20, 2022

#### Can 'Brain Painting' Help ADHD Patients? USF Looks For Answers.

Tampa Bay Times | July 6, 2022

## <u>Developmental Changes in Story-Evoked Responses in the Neocortex and Hippocampus</u> eLife | July 5, 2022

## Small NIH Study Reveals How Immune Response Triggered by COVID-19 May Damage the Brain National Institutes of Health | July 5, 2022

### Strong Link Found Between Emotional Childhood Abuse and Schizophrenia-Like Experiences in Adulthood

Neuroscience News | July 1, 2022

#### Alzheimer's & Dementia Education, Training Legislation Becomes Law

WFLA News Channel 8 | June 23, 2022

#### Babies Exposed to COVID in the Womb Show Neurodevelopmental Changes

Neuroscience News | June 26, 2022

#### **How Asylum Seekers Cross the Border**

New York Times | June 10, 2022

#### Inmates' Challenge of Solitary Confinement in Two Wise County Prisons Moves Forward

The Roanoke Times | June 15, 2022

### Juvenile Justice

# <u>Outrage as Boys Moved from Western Australian Juvenile Detention Centre to Maximum Security Adult Prison</u>

The Guardian | July 6, 2022

#### Orlando Working to Turn Lives Around for Juvenile Offenders

WFTV | July 5, 2022

# Some Louisiana Kids Are Being Shipped to Juvenile Detention Facilities in Mississippi and Alabama, Potentially Violating State Law

The Lens | June 14, 2022

#### <u>Juvenile Detention Center That Illegally Jailed Kids Now Will Answer to an Oversight Board</u> ProPublica | June 8, 2022

#### Study: Schooling for Incarcerated Youth is Fragmented, Inferior

Juvenile Justice Information Exchange | June 29, 2022

#### Deborah Moss: Make Your Community Safer: Don't Put Children in Prison

Pittsburgh Post-Gazette | June 28, 2022

### Elder Justice

## Neglect Far Outpaces Other Forms of Elder Abuse in Michigan – And Here's What Can Be Done About It

Second Wave Michigan | June 23, 2022

# Allie Yang-Green: We Can't Reach Elder Abuse Victims in Rural Areas Without Public Interest Lawyers

Chicago Tribune | July 5, 2022

### Gov. Reynolds Signs Bill Adding Criminal Penalties to Elder Abuse

Iowa Public Radio | June 15, 2022

## Elder Abuse Comes in Many Forms – Appropriate Adult Protective Services Referrals Can Help Reduce Mistreatment

The Conversation | June 14, 2022

<u>Justice Department Sues American Health Foundation and Its Affiliates for Providing Grossly</u> Substandard Nursing Home Services

U.S. Department of Justice | June 15, 2022

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