# NIAAA DIRECTOR'S REPORT ON INSTITUTE ACTIVITIES TO THE 164TH MEETING OF THE NATIONAL ADVISORY COUNCIL ON ALCOHOL ABUSE AND ALCOHOLISM

SEPTEMBER 7, 2023
HYBRID MEETING

George F. Koob, Ph.D.

Director

National Institute on Alcohol Abuse and Alcoholism

National Institutes of Health

https://www.niaaa.nih.gov/about-niaaa/advisory-council





### In Memoriam: Ann P. Streissguth, PhD

Dr. Ann Stresissguth was a Professor in the Department of Psychiatry and Behavioral Sciences at the University of Washington School of Medicine. She became the founding director of the school's Fetal Alcohol and Drug Unit.



Photo courtesy of the University of Washington School of Medicine

Dr. Streissguth was renowned as an expert on fetal alcohol spectrum disorders (FASD), and co-published the first study identifying "fetal alcohol syndrome" in the U.S. and its link to maternal alcohol consumption during pregnancy.

For 30 years, she led the NIAAA-funded longitudinal study "Alcohol Intake during Pregnancy: Offspring Development" that followed study participants from childhood into adulthood, to better understand the long-term neurodevelopmental consequences of FASD.

Dr. Streissguth was an outstanding scientist, esteemed colleague, and generous mentor. She will be sorely missed.

### INSTITUTE UPDATES

### **NIAAA Senior Staff Announcements**



Dr. David Lovinger is NIAAA's new Scientific Director for the Division of Intramural Clinical and Biological Research. He provides scientific, program, and administrative leadership. He is also responsible for promoting an inclusive environment that values diverse perspectives, encourages collaboration, and facilitates innovative research. Dr. Lovinger was previously NIAAA's Acting Scientific Director. In addition to his new role, Dr. Lovinger will continue to direct the Laboratory for Integrative Neuroscience, where his team studies the neurobiology of acute alcohol intoxication, alcohol-seeking behavior, alcohol use disorder, and habitual behavior.

### **NIAAA Senior Staff Announcements**



Ms. Dawn Wayman is NIAAA's new Scientific Diversity Officer, helping to catalyze and coordinate NIAAA-specific goals and resolve critical issues that will enhance the diversity and equity of research programs. Ms. Wayman was previously the branch director for Strategic Diversity and Inclusion in NIH's Office of Equity, Diversity, and Inclusion.

### **NIAAA Budget**

- NIAAA is closing out FY 2023 for which NIAAA received a total of \$596.6 million, including a \$1.3 million AIDS transfer.
- The budget for FY 2024 has not been finalized.

### **NIAAA** Funding Opportunities

(See Director's Report for Complete Listing)

- Alcohol Research Center Program: The overall purpose of the Alcohol Research Centers is to provide leadership in conducting and fostering interdisciplinary, collaborative research on topics relevant to the NIAAA mission. Letters of Intent are due October 15<sup>th</sup>.
   Contacts: Greg Bloss, Dr. Ivana Grakalic, Dr. Kathy Jung, Dr. Antonio Noronha, Dr. Mariela Shirley
  - Specialized Alcohol Research Centers (P50, RFA-AA-23-001)
  - Comprehensive Alcohol Research Centers: These Centers must include a dissemination core to initiate and expand community education related to the activities of the Center. (P60, <u>RFA-AA-23-002</u>)
- Alcohol Treatment and Recovery Research: To support a broad range of topics, including medications development, precision medicine, behavioral therapies, mechanisms of behavioral change, recovery, and innovative methods and technologies. (R01, PAR-23-250 and R34, PAR-23-249) Contacts: Dr. Dan Falk and Dr. Brett Hagman

### **NIAAA** Funding Opportunities (continued)

- Alcohol Health Services Research: To support research on closing the treatment gap for individuals with alcohol use disorder, including increasing access and making treatment more appealing, and reducing health disparities. (R01, PAR-23-251 and R34, PAR-23-252)
   Contact: Dr. Laura Kwako
- Alcohol and Other Substance Use Research Education Programs for Health Professionals: To support projects designed to engage health care professionals in education and research on alcohol use disorder and other substance use disorders. (R25, PAR-23-240)
   Contact: Dr. Laura Kwako
- HIV Prevention and Alcohol: Solicits applications to expand the HIV/AIDS prevention toolkit among alcohol impacted populations and associated behavioral and biological risks for HIV. (R01, PAS-23-173 and R34, PAS-23-172) Contact: Dr. Kendall Bryant

### NIAAA Alcohol Pharmacotherapy Evaluation Program: Request for Letters of Interest

- To help advance medications development for AUD, NIAAA supports the <u>Alcohol Pharmacotherapy Evaluation Program</u>. This integrated program consists of the NIAAA Clinical Investigations Group, a Human Laboratory Program, and now includes an Alcohol Interaction Program.
- The Alcohol Pharmacotherapy Evaluation Program is seeking letters
  of interest for promising medications for AUD both novel
  compounds and repurposed medications to evaluate their safety
  and efficacy in Phase 1 and 2 clinical trials. Clinical trials will
  be supported by an NIAAA contract and conducted by the
  Alcohol Pharmacotherapy Evaluation Program.
  - Letters are due September 15<sup>th</sup>
  - More information and instructions for submitting a Letter of Interest can be found in the Notice, <u>NOT-AA-23-016</u>
  - Contact: Dr. Dan Falk

## Advancing Diversity, Equity, Inclusion, and Accessibility

NIAAA is participating in several funding opportunities to enhance the diversity of the research workforce across the career spectrum (more information is in the Director's Report):

- ADVANCE Predoctoral T32 Training Program to Promote Diversity in Health Disparities Research, Preventive Interventions, and Methodology (RFA-OD-23-018)
- BRAIN Initiative Advanced Postdoctoral Career Transition Award to Promote Diversity (K99/R00) (RFA-MH-23-331, RFA-MH-23-330)
- NIH Neuroscience Development for Advancing the Careers of a Diverse Research Workforce (R25) (PAR-23-178)
- Research Supplements to Promote Diversity in Health-Related Research (PA-23-189)

### Examples of Recent NIAAA-Sponsored Scientific Meetings

- The Interagency Work Group on Drinking and Drug Use in Women and Girls, led by NIAAA, hosted the webinar Achieving Equity in Women's Addiction Prevention and Treatment: Accent on Promising Programs. The webinar was held on June 16<sup>th</sup> and highlighted the Imani Breakthrough Program which develops culturally-relevant, faithbased recovery interventions for Black and Latino communities.
- NIAAA and the National Cancer Institute co-hosted the webinar Policy Approaches to Alcohol and Cancer Prevention: Resources, Results, and Gaps on July 18<sup>th</sup> which highlighted NIAAA's Alcohol Policy Information System.
- NIAAA and the National Institute on Aging held the workshop Role of Alcohol Misuse in the Onset and Progression of Alzheimer's Disease and Its Related Dementias on July 26<sup>th</sup>-27<sup>th</sup>. The workshop featured preclinical and clinical research on how chronic heavy alcohol exposure may intersect with pathways of developing and exacerbating Alzheimer's and related dementias.

### What's Ahead?



#### **Scientific Sessions**

- 1. Alcohol and Substance Use Disorders and the Glymphatic System
- 2. Glial Cells and Neuroimmune Mechanisms in Substance Use Disorders
- 3. Using Neuroscience to Inform Prevention Interventions for Substance Use

More information: <a href="https://apps1.seiservices.com/nida-niaaa/frontiers/">https://apps1.seiservices.com/nida-niaaa/frontiers/</a>

### RESEARCH HIGHLIGHTS

# Web-based Sexual Violence, Alcohol Misuse, and Bystander Intervention Program Delivered to First-Year College Women Reduced Their Exposure to Sexual Violence

Sexual violence toward college women is a major public health concern, and alcohol is a key contributor to sexual violence. This study aimed to determine the efficacy of an internet-based prevention intervention, called RealConsent, delivered to first-year college women and designed to reduce risk for exposure to sexual violence. Participants in the RealConsent group experienced less exposure to sexual violence (SV), engaged in more alcohol protective behaviors, were less likely to binge drink, and were more likely to engage in bystander behavior than the placebo group.

<b>real</b> consent	BEHAVIOR AL/SCIEN CE/TECHN OLOGIES/	≡
Module 1 THINK BEFORE YOU DRINK		
alcohol increases risk		g V m
drink safely		
having a good	time	
PREVIOUS	NE	XT

Exposure to SV outcome		P value	
SOTS: Poisson model, incidence rate ratio (95% CI)			
RealConsent Control	0.48 (0.33-0.69) Reference	.002 N/A	
COSTS: Poisson model, incidence rate ratio (95% CI)			
RealConsent Control	0.56 (0.40-0.78) Reference	.001 N/A	

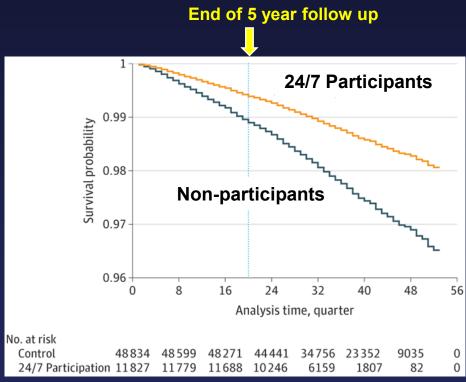
SOTS = Separated outcomes separated tactics scoring method COSTS = Combined outcomes separated tactics scoring method

Using the Poisson regression SOTS and COSTS models, participants in the RealConsent group who had experienced some exposure to SV were found to have a significant decrease in levels of exposure to SV compared with those in the control condition.

# 24/7 Sobriety Program for Individuals Arrested for Driving While Alcohol Impaired Lowers Risk of Mortality

Alcohol-impaired driving fatalities are increasing. To help address this problem, the South Dakota 24/7 sobriety program orders driving under the influence (DUI) offenders to abstain from alcohol and provides frequent monitoring with swift, certain, and moderate penalties for violations. The current study examined time-to-mortality outcomes of ~12,000 program participants and ~49,000 nonparticipants up to 5 years following arrest. The researchers found significant reductions in the risk of mortality among program participants relative to nonparticipants, demonstrating that 24/7 sobriety programs may improve health outcomes in addition to improving public safety.

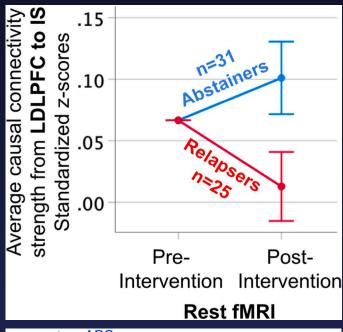
Predicted Survival Functions for 24/7
Sobriety Program Participants and
Non-participants

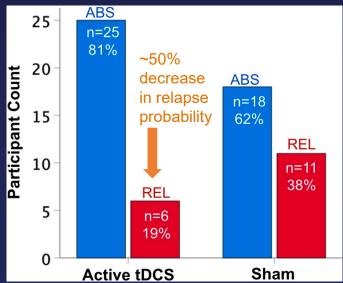


# Treatment with Frontal tDCS increased Odds of Remaining Abstinent in Individuals with AUD

Variations in functional connectivity between certain brain networks has been associated with risk of relapse to alcohol misuse. This study investigated the effects of transcranial direct current stimulation (tDCS), a brain-based noninvasive treatment, on relapse rates in individuals with AUD during early abstinence. Treatment for five days, compared to the sham condition, strengthened the connectivity from the lateral dorsal prefrontal cortex (LDLPRC) to the addiction networks supporting incentive salience (IS) and negative emotionality (NE). An increase in lateral dorsal prefrontal cortex incentive salience connectivity increased the odds of remaining abstinent at four months. These results support the potential utility of harnessing the brain's functional connectivity to support behavior change.

Camchong J, Roediger D, Fiecas M, Gilmore CS, Kushner M, Kummerfeld E, Mueller BA, Lim KO. Frontal tDCS reduces alcohol relapse rates by increasing connections from left dorsolateral prefrontal cortex to addiction networks. Brain Stimul. 2023 Jun 20;16(4):1032-1040.

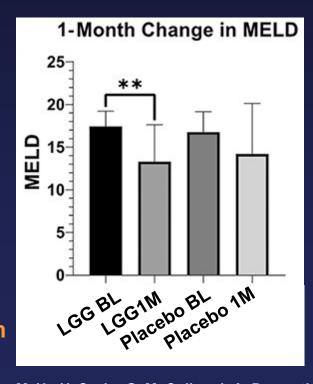




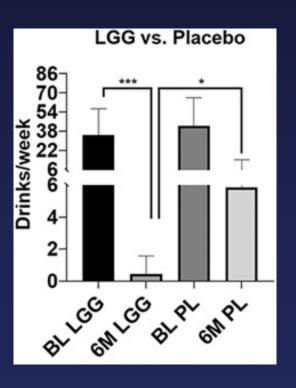
# Probiotic Treatment Decreased Liver Injury and Heavy Drinking in Moderate Alcohol-Associated Hepatitis Patients

Alcohol consumption leads to changes in the gut microbiota's composition and growth, a phenomenon known as dysbiosis. The probiotic *Lactobacillus rhamnosus* GG (LGG, 10<sup>9</sup> CFU), administered daily for 6 months in patients with heavy drinking and moderate alcohol-associated hepatitis, reduced liver injury at one month and significantly reduced heavy drinking levels at six months. This pilot is ongoing and continues to recruit patients.

Liver disease severity as determined by the Model for End-stage Liver Disease (MELD) score in patients receiving LGG or placebo at baseline (BL) and one month (1M)



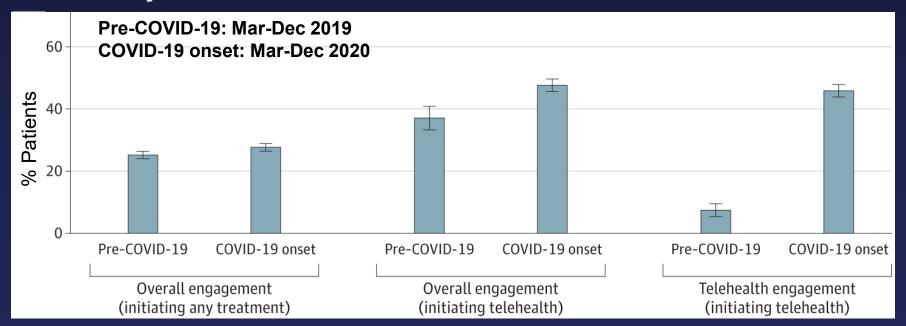
Drinks per week in patients receiving LGG or placebo at baseline (BL) and 6 months (6M)



Vatsalya V, Feng W, Kong M, Hu H, Szabo G, McCullough A, Dasarathy S, Nagy LE, Radaeva S, Barton B, Mitchell M, McClain CJ. The Beneficial Effects of Lactobacillus GG Therapy on Liver and Drinking Assessments in Patients with Moderate Alcohol-Associated Hepatitis. Am J Gastroenterol. 2023 Aug 1;118(8):1457-1460.

### Telehealth Addiction Treatment Utilization Increased During the COVID-19 Pandemic

This study investigated the impact of COVID-19 telehealth policy changes on addiction treatment utilization and potential disparities in utilization. Investigators analyzed electronic health records and claims data from adults with substance misuse in the Kaiser Permanente Northern California healthcare system. The researchers showed that telehealth addiction treatment utilization increased during the early phase of the pandemic for all subgroups without variation by race, ethnicity, or socioeconomic status. Younger adults in particular may have benefited most from the transition to telehealth.



Palzes VA, Chi FW, Metz VE, Sterling S, Asyyed A, Ridout KK, Campbell Cl. Overall and Telehealth Addiction Treatment Utilization by Age, Race, Ethnicity, and Socioeconomic Status in California After COVID-19 Policy Changes. JAMA Health Forum. 2023 May 5;4(5):e231018.

# REMINDER OF NIAAA RESOURCES

## Resources for the Public and Healthcare Professionals

### **Rethinking Drinking**

A website and print publication for a general audience to help individuals assess their drinking habits and find ways to make a change.



#### CollegeAIM

Comprehensive information on prevention approaches found to be effective in college environments.



### **Alcohol Treatment Navigator**

Helps individuals understand treatment options and search for nearby treatment, including telehealth services. It also includes a portal to assist health care providers in making referrals for their patients.



niaaa.nih.gov

### Healthcare Professional's Core Resource (HPCR)

What Every Healthcare Professional Should Know about Alcohol

HPCR was designed to help address common barriers to optimum alcohol-related healthcare by providing:

- Knowledge to fill common gaps in training about addiction, including the neuroscience of addiction, evidence-based AUD therapy and medications, and the varied paths to recovery
- Quick, validated alcohol screening and assessment tools that address time constraints while providing a definitive picture of drinking levels and AUD symptoms
- Clarity about what constitutes heavy drinking, AUD severity levels, and recovery to build confidence in providing brief advice and collaborating on recovery plans
- Steps to reduce stigma surrounding alcohol-related problems and encourage greater patient acceptance of alcohol treatment when needed

### **THANK YOU!**

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Van Van

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