MEDICAMENT

MEDICAL MARIJUANA RESEARCH NEWSLETTER

FALL 2025

WELCOME TO MEDICAMENT,

the Consortium for Medical Marijuana Clinical Outcomes Research's quarterly newsletter.

The Consortium, founded by the State of Florida, conducts, disseminates, and supports research on the use and effects of medical marijuana on patient outcomes.

In the Fall 2025 issue of MEDICAMENT:

Consortium for Medical Marijuana Clinical Outcomes Research

To learn more about the Consortium and our programs, visit us at mmjoutcomes.org.

SAVE THE DATE: CCORC 2026

The Consortium for Medical Marijuana Clinical Outcomes Research is excited to announce its sixth annual conference, the Cannabis Clinical Outcomes Research Conference (CCORC), will be held **November 5 & 6, 2026 at the UF Academic and Research Center at Lake Nona**.

STAY IN TOUCH FOR CCORC UPDATES

COMING SOON: 2026 RESEARCH GRANTS PROGRAM

Request for Proposals to be released October 31st for the 2026 cycle

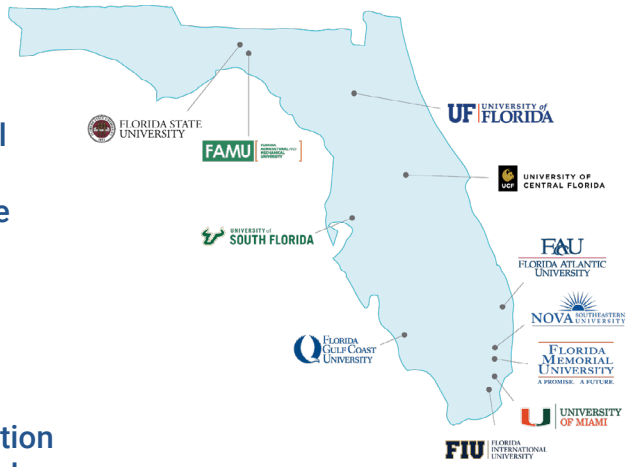
Consortium for
Medical Marijuana
Clinical Outcomes Research

2026 REQUEST FOR PROPOSALS

The Consortium for Medical Marijuana Clinical Outcomes Research (Consortium) provides awards to support clinical and translational research related to Medical Marijuana (MMJ) to investigators within member institutions.

Research proposals focused on the clinical outcomes of MMJ use, effect of MMJ on prescription medication and substance use and substance use disorders, differences in effects on routes of administration, interactions of MMJ with other drugs/ medications, public health outcomes of cannabis laws and regulations, evaluating components of MMJ/cannabis, and mitigation of the risks of cannabis use are encouraged.

The research grant award mechanism will consider fully developed research studies that generate novel evidence, as well as studies intended to facilitate the collection and/or analysis of preliminary data that will support future extramural funding applications.



LETTER OF INTENT (REQUIRED) DEADLINE FEB 4TH, 2026

VISIT MMJOUTCOMES.ORG/RESEARCH FOR DETAILS ON THE RESEARCH GRANTS PROGRAM

2025 CONSORTIUM GRANT AWARDEES

Awardees share their project narratives and anticipated impacts

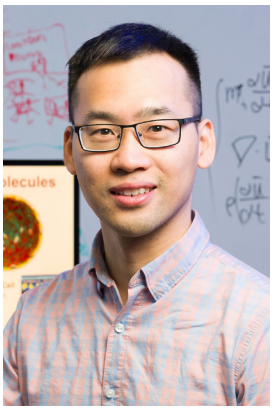
Six new awards along with two second year renewals were made in the 2025 Grants Program. The awarded researchers are from six Consortium-member institutions.

Effects of Cannabis Constituents on the Reinforcing Properties of Fentanyl in Rats: A Behavioral and Neurobiological Approach

PI: Adriaan Bruijnzeel, PhD
University of Florida

Project Narrative: This project will determine whether cannabis smoke with varying levels of THC and CBD affects fentanyl intake, withdrawal symptoms, and relapse risk in a validated rodent model of opioid addiction. We will integrate functional connectivity analyses with machine learning to predict how cannabis alters brain networks during fentanyl withdrawal.

Anticipated Impact: The anticipated impact of this research is to generate rigorous preclinical evidence on whether specific cannabis formulations, particularly high-CBD cannabis, can serve as harm reduction strategies for fentanyl use disorder. These findings may guide future evidence-based policy decisions on the medical use of marijuana to improve treatment effectiveness and reduce the number of opioid overdose deaths.



Developing a Miniaturized Flow-based POC Device for Assessing and Mitigating the Risks of Cannabinoid-associated Coagulopathy

PI: Z. Leonardo Liu, PhD
Florida State University

Project Narrative: Recent surging incidence of cannabinoid-associated coagulopathy (CAC) underscores the urgent need for personalized assessment tools to evaluate coagulation risks in patients exposed to cannabinoids, particularly those on anticoagulant therapy. This project aims to develop a miniaturized, point-of-care (POC) coagulation assay capable of rapidly measuring personalized coagulation capacity and detecting cannabinoid-induced alterations in anticoagulant efficacy.

Anticipated Impact: The POC coagulation assay will enable rapid clinical assessment of the risks of CAC. The findings will contribute to evidence-based guidance on marijuana use in patients on anticoagulants during medication complications, improving patient safety and therapeutic outcomes.

Impact Of Medical Marijuana Initiation On Opioid Dosing And Use Among Florida Medicaid Enrollees With Type 2 Diabetes

PI: Alexandra Perez Rivera, PhD
Nova Southeastern University

Project Narrative: This project will evaluate whether medical marijuana initiation reduces opioid use among Florida Medicaid enrollees with type 2 diabetes, a population at elevated risk for chronic pain and long-term opioid therapy by leveraging the MEMORY database.

Anticipated Impact: The findings will provide robust evidence on how medical marijuana affects opioid dosing, discontinuation, and prescription use in a high-risk population.

Evaluation of the Effects of Cannabis on the Glymphatic System and Sleep Quality in People with Multiple Sclerosis

PI: Teddy Salan, PhD
University of Miami

Project Narrative: The glymphatic system (GS), a waste clearance system for the removal of toxic waste products from the brain, plays a role in neurodegenerative diseases like multiple sclerosis (MS). GS activity is regulated by sleep and presents a potential mechanistic bidirectional pathway linking sleep disruption with MS progression. This study proposes to evaluate the effect of cannabis on GS function and sleep in people with MS (pwMS).

Anticipated Impact: This proof-of-concept study is the first of its kind to investigate the effect of cannabis on glymphatic clearance in relation to sleep in general, and in pwMS in particular. The findings are expected to further shed light on the therapeutic benefits of cannabis and its ability to modulate sleep and GS clearance in pwMS.

Evaluating the Efficacy of Water-Soluble CBD in Reducing Risky Alcohol Use: A Randomized Controlled Trial

PI: Karina Villalba, PhD, MPH, MBA
University of Central Florida

Project Narrative: Approximately 90% of individuals engaging in harmful drinking fall into a preclinical category, where their behaviors are associated with significant health risks but do not meet diagnostic criteria for alcohol use disorder (AUD). This double blinded randomized controlled trial will evaluate the preliminary efficacy of water-soluble CBD [Broad Spectrum (THC-free, 150 mg) vs. Full Spectrum (<0.3% THC, 150 mg) vs. placebo] in reducing alcohol use and cravings in individuals at risk for AUD.

Anticipated Impact: By targeting people who are risky drinkers before the onset of AUD, this approach offers a promising alternative for reducing alcohol consumption and cravings, potentially mitigating progression to more severe alcohol-related problems.

Medical Cannabis: Patterns, Safety & Effectiveness in Cancer Patients

PI: Coy Heldermon, MD, PhD
University of Florida

Project Narrative: This project addresses a key evidence gap on real-world outcomes of medical cannabis (MC) use in cancer care by using the Florida Medical Marijuana Use Registry linked with Medicare and Medicaid administrative healthcare claims data. This study will characterize trends and clinical/sociodemographic correlates with MC use patterns among patients with common cancers. By analyzing these patterns, evaluating their relationship with opioid dosing in cancer patients and adherence to endocrine therapy in breast cancer patients, the study will provide important insights on the effect of medical cannabis in patients with cancer.

Anticipated Impact: These findings will help clinicians and policymakers interpret potential benefits and risks associated with MC use in patients with cancer, as well as guide counseling, coverage, and research priorities in this area.

2025 Level 2 Projects

The following projects received Level 2 funding grants in 2024 and subsequently received approval for second-year funding in 2025:

Role of CBD and Full Spectrum CBD in Diabetes Induced Peripheral Neuropathy

PI: Mandip Sachdeva, PhD
Florida A&M University

Project Narrative: Diabetic peripheral neuropathy (DPN) is a prevalent and debilitating complication of diabetes mellitus, marked by the progressive loss of sensory function in the lower extremities. Existing treatments for DPN provide only partial symptomatic relief and do not prevent disease progression. This project hypothesizes that cannabidiol (CBD), either as a standalone treatment or within a full-spectrum CBD formulation, can alleviate DPN symptoms—such as pain, numbness, and tingling—thereby improving sleep quality, mood, and overall quality of life in diabetic patients. The study aims to evaluate the effectiveness of these treatments, monitor patient responses to cannabinoid supplements versus placebo.

Anticipated Impact: By comparing CBD isolate to full-spectrum CBD in DPN patients, this study aims to determine whether differences in compliance, clinical response, and patient-reported QOL outcomes can guide future therapeutic strategies.

Effects of a Hemp-derived Cannabidiol and Cannabidiolic-acid Oral Extract on Resting-state Electroencephalography and Neuropathic Pain in People with Spinal Cord Injury

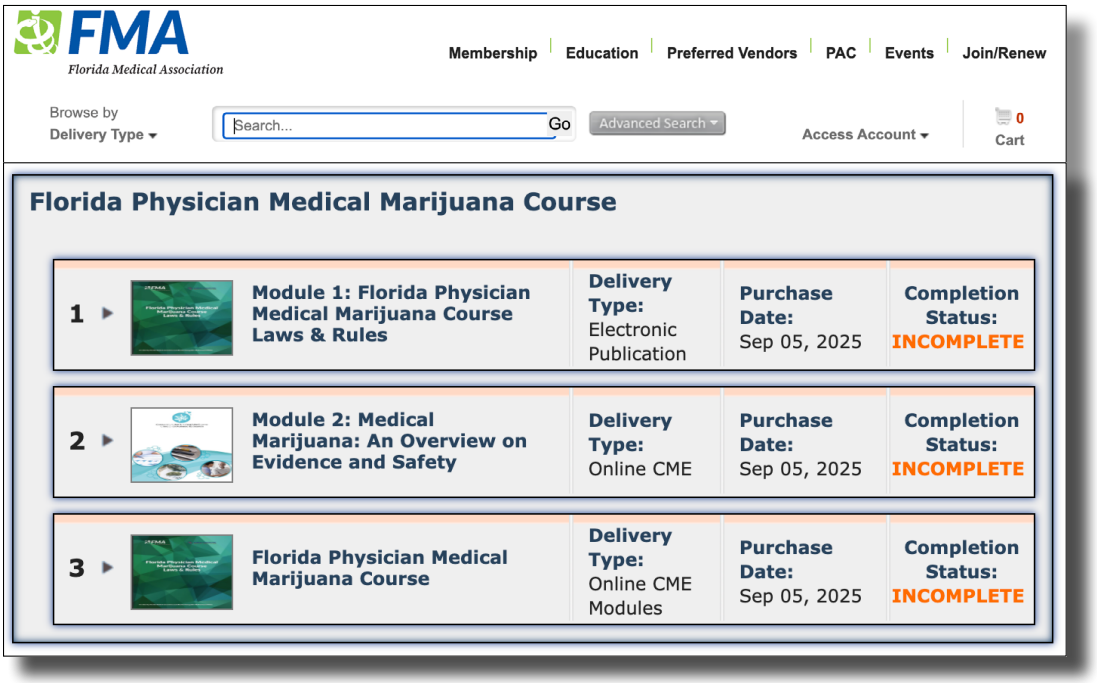
PI: Eva Widerström-Noga, DDS, PhD, FASIA
University of Miami

Project Narrative: No studies to date have examined the acute effects of oral CBD/CBD-A on neuropathic pain intensity and unpleasantness, and electroencephalogram (EEG) resting state power in people with spinal cord injuries. The proposed research will determine if a single CBD/CBD-A dose produces analgesic effects and if these changes can be verified by neuroelectric correlates. We will gain improved understanding of the effects and underlying mechanisms of cannabis and cannabinoids on SCI-related neuropathic pain.

Anticipated Impact: If successful, the outcomes of this study will facilitate the development of larger, high-quality clinical trials to evaluate the long-term effects of cannabinoid treatments on neuropathic pain and quality of life in people with spinal cord injuries.

COLLABORATING WITH THE FLORIDA MEDICAL ASSOCIATION

The Consortium is collaborating with the FMA on a new continuing education (CE) course now available to Florida physicians



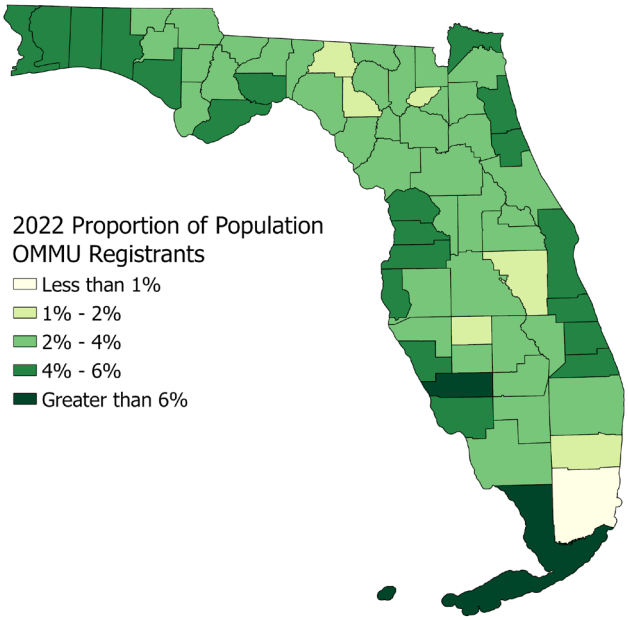
The Consortium is collaborating with the Florida Medical Association (FMA) to launch a new and improved Florida Physician Medical Marijuana Course.

This course is required for all physicians seeking certification to provide medical marijuana treatment orders in Florida.

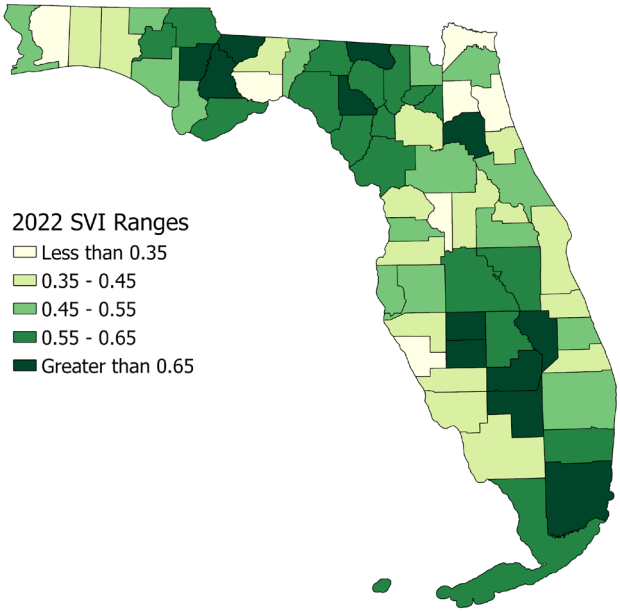
The course includes two modules. Module 2: Medical Marijuana: An Overview on Evidence and Safety is instructed by Consortium leadership Dr. Robert Cook, Dr. Amie Goodin, and Dr. Yan Wang. Find more information on this course here >

MEMORY UPDATES

Geocoding introduces Social Vulnerability Index (SVI) into MEMORY database



Map of OMMU registrations (MMJ patients) in 2022 as proportionate to the population.



The SVI values per county in Florida.

MEMORY (MEdical Marijuana clinical Outcomes RepositorY) is a unique interlinked database which includes all registered medical marijuana users in Florida, allowing the investigation of medical marijuana related clinical outcomes and policy research.

As part of an ongoing project, registrant addresses from the Office of Medical Marijuana Use (OMMU) have been geocoded and linked to the Social Vulnerability Index (SVI) at the U.S. Census Tract level. The SVI, based on 16 socioeconomic and demographic variables, will be made available to researchers in a fully de-identified format.

This geocoding effort opens the door for future linkage of MEMORY data to additional geospatial datasets, with useful applications to medical marijuana research. The proportion of MMJ registrants among the Florida population has steadily increased over the years that the program has been available.

At the county level, an inverse relationship exists between the social vulnerability index (SVI) and the proportion of medical marijuana registrants. The SVI distribution among OMMU patients is shifted toward lower vulnerability levels compared with that of the overall population. In other words, OMMU patients are more likely to come from areas with lower social vulnerability than the general population.

Read more about MEMORY >

New MEMORY Study

Medical Marijuana Patients with Previous Cannabis Exposure and Cannabis Use Disorder in Florida
Johanna Modrack
Objective: To describe the patterns and determinants of patients' documented cannabis use and cannabis use disorder before initiating medical marijuana.

EVIDENCE AND RESEARCH ANNOUNCEMENTS

New publication from Consortium-affiliated researchers: Neurodevelopmental effects of perinatal exposure to cannabis on progeny

Drug and Alcohol Dependence Reports 16 (2025) 100372

Contents lists available at ScienceDirect

Drug and Alcohol Dependence Reports

journal homepage: www.elsevier.com/locate/dadr

ELSEVIER

Review

Neurodevelopmental effects of perinatal exposure to cannabis on progeny: A narrative review

Chidimma Doris Azubuike [a], Oliver Grundmann [b], Amie J. Goodin [a,*]

[a] Department of Pharmaceutical Outcomes and Policy, University of Florida, Gainesville, FL, United States
[b] Department of Medicinal Chemistry, University of Florida, Gainesville, FL, United States

In a recently published paper, Consortium-affiliated researchers review current clinical evidence on the neurodevelopmental effects of perinatal cannabis exposure. The review examined studies on cognition, mental health diagnoses, and school-related performance in children exposed during pregnancy or early childhood.

Findings show mixed results for cognition, autism, and learning, but a consistent link between prenatal cannabis exposure and higher ADHD risk. No significant associations were found for anxiety or depression. Evidence found that higher THC exposure was associated with more aggressive behavior in males compared to females.

The authors highlight the need for future studies with better exposure assessments, standardized cognitive measures, and approaches that consider cannabis concentration and composition across generations.

Read the full article here >

THE CONSORTIUM JOINS THE ASSOCIATION OF CANNABIS RESEARCH CENTERS (ACRC)

The Consortium has joined the Association of Cannabis Research Centers (ACRC). The ACRC is a consortium of approximately 20 centers in North America that evolved through the Systematically Testing the Evidence on Marijuana (STEM) Project. Members include clinicians and researchers who conduct preclinical and clinical cannabis research.

ACRC
Association of Cannabis Research Centers

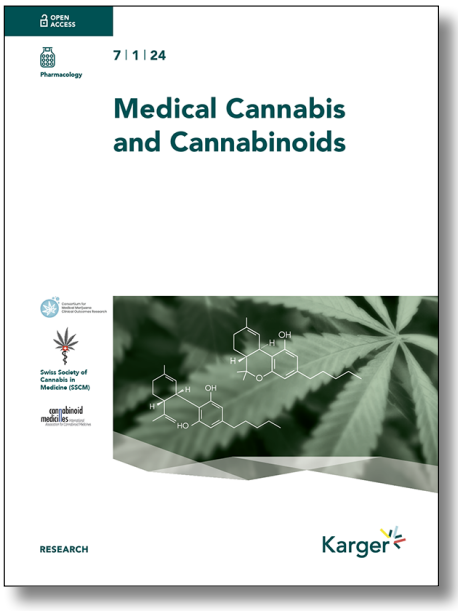
Their mission statement includes:

1. To advance high-quality research on the impact of cannabis on health
2. Coordinate across cannabis research centers to identify key gaps in health-related cannabis research
3. Communicate association efforts to the broader research and healthcare communities

Learn more here >

JOURNAL CORNER

Updates from Karger, publisher of the Consortium's official journal



Medical Cannabis and Cannabinoids is the official journal of the Consortium, offering an international forum to investigate cannabis safety and effectiveness when used for medical purposes. This series in the newsletter, Journal Corner, provides updates, information and resources from the journal publisher, Karger.

New from Consortium Members

• Cannabinoids for Anxiety and Sleep Disturbances: A Scoping Review (Juan G. Perez, Liva G. LaMontagne, Gabriela A. Garcia, Krishna Vaddiparti, Pranav S. Gupta, Benjamin Z. Churba, Ryan Hossain, Catalina Lopez-Quintero). Med Cannabis Cannabinoids 2025; DOI: 10.1159/000548890

• Medical Patients' Awareness, Perspectives, and Experiences with Contaminated Cannabis (Gabriel Spandau, Jamie Loizzo, Amie Goodin, James C. Bunch, Nicole Stedman, Brian Pearson). Med Cannabis Cannabinoids 2025;8:166–180; DOI: 10.1159/000546398

Medical Cannabis and Cannabinoids at a Glance

- Official journal of the Consortium for Medical Marijuana Clinical Outcomes Research
- Consortium members are eligible for an **article processing charge (APC) discount of 50%** on accepted articles
- Open Access
- Indexed in PMC, DOAJ, Scopus
- CiteScore: 4.4

For more information or questions about *Medical Cannabis and Cannabinoids*, visit the journal website or contact:

Alan Tootle, Publication Manager,
a.tootle@karger.com

GET INVOLVED IN RESEARCH

CARMMA: Changing the way we collaborate across the state of Florida

The Connect and Advance Research for Medical Marijuana Analysis (CARMMA) Database is accessible to researchers, physicians, and industry collaborators to foster collaborations in medical marijuana research.

Anyone interested in engaging in medical marijuana research is invited to register in CARMMA to find collaborators.

Medical Marijuana and Me (M^3) Study Data Access

Researchers from Consortium-member institutions have the opportunity to access data from a cohort of medical marijuana patients in the Medical Marijuana & Me (M^3) Study. This includes cross-sectional survey data and longitudinal survey data.

To read more about the study protocol, research scope and measures, click here.
To request data access, please reach out to mmj.outcomes@cop.ufl.edu. More information is available at mmjoutcomes.org/m3study.

Have news or feedback to share? Let us know!

Share your Consortium-related research and news through our submission form.

Share your comments on our newsletter through our feedback form.

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Share your contact information through our newsletter sign-up form.

Read previous MEDICAMENT issues.

Consortium for Medical Marijuana Clinical Outcomes Research